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TECHNICAL INFORMATION /

data sheets

Altro Whiterock™ hygienic PVCu wall cladding systems

Altro Whiterock hygienic PVCu ceiling systems

Altro Whiterock hygienic PVCu doorsets

Altro Quickclad™ walling systems

Altro Zolatone™ wall coating systems

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section one /

Altro Whiterock hygienic wall, ceiling systems & doorsets



a l t r o

Altro Whiterock™ hygienic wall and ceiling systems

Technical guide



MAY 2006

Operating temperature

Standard PVCu

W103, W104, W136, W137, W001, W133, W140, W141, W160 and W161 will withstand service temperature of up to 60°C.

N.B. If cleaning with hot water lance, temperature to be regulated to a maximum of 60°C and not to be localised.

Stainless steel

Panel protection for temperatures over 60°C for use near deep fat friers/gas cookers/wall mounted grills/back vented ovens etc. Also portable items i.e. kettles/toasters/ microwave ovens and back-vented commercial type. Insectacut (insect killers): over-size panel required with 100mm minimum all round to protect cladding from intense ultraviolet emissions which could, in time, possibly cause discolouration.

Suitable surfaces

(Check adhesive data for specific requirement)

1. Good quality, fair-faced brick or blockwork with well aligned joints all bagged up flush and all cement snots removed. Must be straight to within 3mm over 2 metres and bricks/blocks flush with those adjacent.
2. Sand and cement rendering 1:3 to a steel trowel finish.
3. 12.5mm thick plasterboard.
4. Minimum 9mm W.B.P. resin bonded plywood.
5. Minimum 9mm MDF dense wood based panels.
6. Ceramic tiles which should be securely bonded to the substrate.
7. Most sound painted surfaces (an adhesive test is advisable to ascertain suitability).
8. New pink finishing plasters are generally dusty. Surfaces to be brushed and thoroughly sealed with diluted PVA primer (Unibond or similar), or Altro primer sealer.

N.B. Class 0 fire classification can only be obtained on a non combustible surface. Combustible substrates will give a Class 1 classification, unless stainless steel is used.

Surface preparation

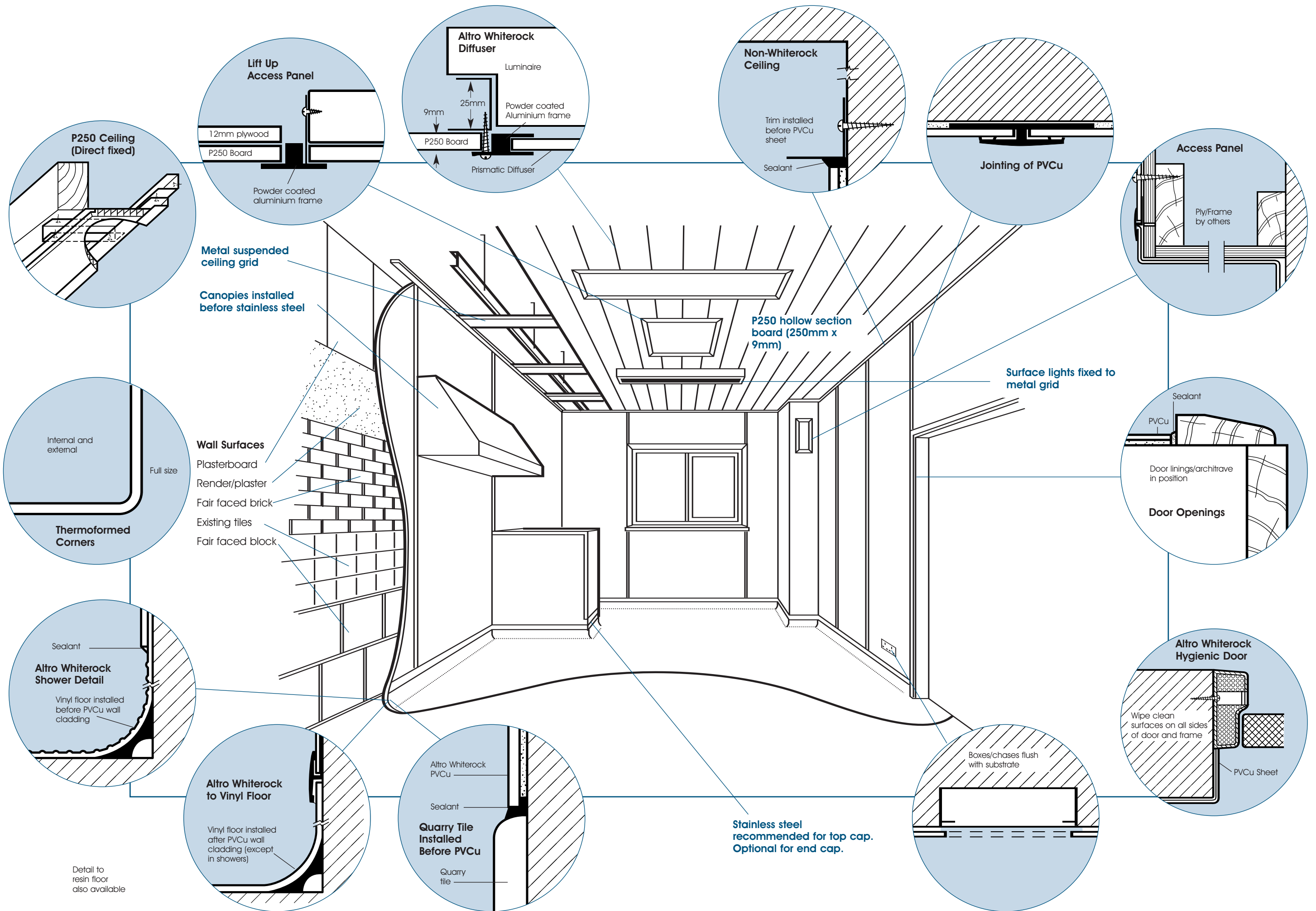
1. All substrates to be dry to 16% WME (wood moisture equivalent) on protimeter 'Surveymaster' equipment).
2. All loose flaking paint and dust to be removed.
3. Friable surfaces to be removed or made sound using proprietary surface treatment as advised by Altro Walls.
4. All surfaces to be free from grease, ceramic tiles to be thoroughly degreased, rinsed and left to dry.
5. Loose tiles to be removed and area to be made good using Ardurapid 45 repair mortar, sand cement with Unibond mix (if drying time permits), or plywood infill.
6. Depressions in substrate surface should be filled with Ardurapid 45 repair mortar, sand cement with Unibond mix (if drying time permits), or plywood infill.

Installation temperature

Altro Walls recommends that our PVCu wall cladding is installed at approximately the ambient service temperature at which the room area will be when commissioned.

This is to ensure that expansion parameters are not exceeded, i.e. normal expansion is provided for in the fitting of the material within the joint strips and the silicone mastic seals at abutments.

The coefficient of expansion of Altro Whiterock cladding is 8×10^{-5} .



A full range of installation detail diagrams is available from Altro Walls. Tel: 01502 561364.

Items requiring completion prior to Altro Whiterock cladding installation

Ceiling

Ceiling trim or shadow batten to be in position (shadow batten to be completed with finishing coat of paint) if plastered ceiling perimeter trim will require painting.

Electrics

Electrics on walls to be at first fix stage only i.e. metal boxes let flush into wall surfaces (wires made safe), chases to be infilled with sand and cement (this is to be dry); any surface mounted conduits/surface mounted boxes etc. to be fitted after cladding.

Plumbing etc

All surface mounted pipes/clips/sink units and equipment to be installed after cladding; any copper feed/waste pipe requirements to project through wall face at 90° with bends and traps fitted after cladding. Existing pipes/ clips/sink units and equipment to be removed where practical.

Joinery

If fitting architraves to frames, these to be in place prior to installation of Altro Whiterock cladding. If not possible, allow lining to project 5mm past face of the wall to eliminate having to rebate architrave over cladding.

Paintwork

It is advisable to complete all paintwork finishing coats which come in contact with Altro Whiterock cladding as sealant used at junctions is non-paintable. If not possible, mask woodwork. There should be at least a complete priming coat to enable sealant to achieve a satisfactory bond.

Flooring Preparation

Height of cove required. Vinyl flooring is installed after completion of cladding (excluding shower environments). Resin flooring can be installed before or after commencement of cladding. Quarry tile flooring with coved skirting upstands require joints to be grouted before commencement of cladding. Please contact Altro for the relevant detail drawing sheet.

Specification for other trades

Fixing to or through Altro Whiterock cladding - general care

- 1. All pipes, bolts and fixings through the surface of Altro Whiterock cladding to have 4mm expansion gaps and to be sealed with Altro Whiterock sealant.
- 2. Do not direct blowlamps, naked flames or severe heat on to the surface of Altro Whiterock cladding.
- 3. When cleaning surface of Altro Whiterock cladding we recommend that the temperature of the water does not exceed 60°C. Do not use cleaning materials of an abrasive nature.
- 4. Before testing out any kitchen equipment likely to expel severe heat, we recommend the extraction systems to be operational as failure to do this may result in expansion problems.
- 5. All steam and hot pipes to be kept from the surface of Altro Whiterock cladding and to be insulated.

Detailed product and installation information, diagrams and typical specification sheets are available from Altro tel: 01502 561364.

ALTRO WHITEROCK™ HYGIENIC WALL AND CEILING SYSTEMS TECHNICAL GUIDE



Altro Whiterock™ hygienic wall and ceiling systems



Data sheet 'EU' grade - extruded W103/104, Altro Whiterock standard white

Economical standard grade for general purpose use. Also suitable where sheet may come into contact with food.

Description

Extruded semi-rigid PVCu sheet. Colour: white Surface finish: Satin Thickness: 2.5mm Size: 2500 x 1220mm (W103) 3000 x 1220mm (W104) Weight: 3.5 kg per m² Maximum service temp: 60°C

Altro Whiterock W103/104 PVCu extruded sheet is supplied with a protective film on its face which can be left in place until the room is ready for use. This also helps to protect the surface from dust while other trades are in the area. It is ideal for applications requiring a hygienic easy-to-clean, almost maintenance free wall finish, which conforms to UK hygiene requirements.

This is the most economical standard grade which will be used for the majority of installations.

Fixing

The sheets can be fixed directly to most dry substrates depending on its surface suitability, using one of the following methods:

- 1. AltroFix® W139 all over adhesive
- 2. AltroFix® W173 all over adhesive
- 3. AltroFix® W157 all over adhesive

Cutting

A jigsaw is the best method, however a fine toothed hand saw can also be used.

Jointing

- see relevant detailed drawings
- 1. A high impact extruded PVCu 'H' joint trim (available in two part or single part profiles), incorporating a watertight seal at the mouth of the joint, which is unique to Altro Whiterock.
- 2. A powder coated aluminium "H" joint used for extra impact or heat resistance.
- 3. Silicone joint 3-4mm wide.
- 4. Hot welded joint - ask for details.

Internal/external corners

- see relevant detailed drawings Altro Whiterock is normally thermoformed on-site, so that window and door reveals are neatly clad without an edge joint. However, profiles are available for the self-installer to cope with these details. Vulnerable external corners are usually over-clad with stainless steel corner protectors, to a height of 1200mm.

Cleaning

Regular cleaning using a soft cloth and a suitably diluted mild detergent is all that is normally required. Stubborn marks can be removed with Altro Cleaner A859 or non-abrasive domestic type cream bath cleaner.

- Do not use abrasive pads or wire wool.
- Do not clean above 60°C.
- Cleaning cards are available on request.

Chemical resistance

Resistant to a wide range of chemicals, specific details on request.

Availability

Ex-stock

Storage & conditioning (on-site)

Sheets should be stored flat, fully supported and left for 24 hours to attain the ambient room temperature prior to installation (min 14°C).

Limitations of use

Altro Whiterock W103/104 has a maximum working temperature of 60°C. For temperatures above this use stainless steel. Stainless steel must be used for all open flame areas (available cut to size). If a layout showing the position of equipment can be supplied, we will provide specific advice as to the best combination of materials to use.

Typical applications

- Commercial kitchens
 - Laboratories
 - Pharmaceutical areas
 - Food manufacturing areas
 - Shower/toilet/changing room areas
- Our Technical Services Department is available for advice on 01502 561364.

Technical data

Property	DIN	Values
Density (g/cm³)	ISO 1183	1.39
E-modulus of elasticity (Mpa)	ISO 527	3550
Impact resistance (KJ/m²)	ISO 179/1eU	
+20°C		Without rupture
0°C		Without rupture
-20°C		Without rupture
Flexural strength (Mpa)	ISO 178	79.8
Tensile strength (Mpa)	ISO 527	48
Shore-hardness D	ISO 868	79
Surface resistance ROE (Ω)	DIN IEC 60 167	2.00E +14
Volume Resistance RD (Ω)	DIN IEC 60 093	6.90E +13
Dielectric strength (KV/mm)	DIN IEC 243	16.8
Dielectric constant	53483	3.2
Dielectric loss index	53483	0.02
Thermal conductivity - 'K Value' (W/mK)	52612	0.16
"U" value (bonded to 100mm block wall (W/m² °C)	52612	1.8
Expansion coefficient at 20°C after 1 h storage at 90°C (10⁻⁴/K)	53752	7.10⁻⁵
Compressive strength (N/mm²)	53454	70
Vicat softening point VST/B (°C)	ISO 306	80
Heat distortion temperature (°C)	ISO 75-2	60
Water absorption (%)	ISO 62	0.09
Moisture vapour transmission rate (MVTR)	ASTME96	0.120 g/m²/24hrs
Water vapour resistivity	ASTME96	3.82 x 10⁶GN.S/Kg.m
Light reflectance values (LRV)	D65 artificial daylight	95
Flammability		
Surface spread of flame	BS 476 Part 7 1987	Class 1
Fire propagation	BS 476 Part 6 1989	Class 0*
		(*when fixed to a non-combustible substrate)

for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail: walls@altro.com or explore www.altro.com



CI/StB reference		
(43)	T	(U47)
May	2006	

Altro Whiterock™ hygienic wall and ceiling systems



Data sheet
'EU' grade - extruded W136/137,
Altro Whiterock Pastels

MAY 2006

Pastel coloured extruded sheets for areas requiring a decorative appearance. Also suitable where sheet may come into contact with food.

Description

Extruded semi-rigid PVCu sheet.
Colour: 11 pastel colours
Surface finish: Satin
Thickness: 2.5mm
Size: 2500 x 1220mm (W136)
3000 x 1220mm (W137)
Weight: 3.5 kg per m²
Maximum service temp: 60°C

Altro Whiterock W136/137 PVCu extruded sheet is supplied with a protective film on its face which can be left in place until the room is ready for use. This also helps to protect the surface from dust while other trades are in the area. It is ideal for applications requiring a hygienic easy-to-clean, almost maintenance free wall finish, which conforms to UK hygiene requirements.

Fixing

The sheets can be fixed directly to most dry substrates depending on its surface suitability, using one of the following methods:

1. AltroFix® W139 all over adhesive
2. AltroFix® W173 all over adhesive
3. AltroFix® W157 all over adhesive

Cutting

A jigsaw is the best method, however a fine toothed hand saw can also be used.

Jointing

- see relevant detailed drawings
1. A high impact extruded PVCu 'H' joint trim (available in two part or single part profiles), incorporating a watertight seal at the mouth of the joint, which is unique to Altro Whiterock.
 2. Silicone joint 3-4mm wide.
 3. Hot welded joint - ask for details.

Internal/external corners

- see relevant detailed drawings
Altro Whiterock is normally thermoformed on-site, so that window and door reveals are neatly clad without an edge joint. However, profiles are available for the self-installer to cope with these details. Vulnerable external corners are usually over-clad with stainless steel corner protectors, to a height of 1200mm.

Cleaning

Regular cleaning using a soft cloth and a suitably diluted mild detergent is all that is normally required. Stubborn marks can be removed with Altro Cleaner A859 or non-abrasive domestic type cream bath cleaner.
Do not use abrasive pads or wire wool.
Do not clean above 60°C.
Cleaning cards are available on request.

Chemical resistance

Resistant to a wide range of chemicals, specific details on request.

Availability

Ex-stock.

Storage & conditioning (on-site)

Sheets should be stored flat, fully supported and left for 24 hours to attain the ambient room temperature prior to installation (min 14°C).

ALTRO WHITEROCK™ HYGIENIC
WALL AND CEILING SYSTEMS
'EU' GRADE - EXTRUDED W103/104,
ALTRO WHITEROCK STANDARD WHITE

Limitations of use

Altro Whiterock W136/137 has a maximum working temperature of 60°C. For temperatures above this use stainless steel. Stainless steel must be used for all open flame areas (available cut to size). If a layout showing the position of equipment can be supplied, we will provide specific advice as to the best combination of materials to use.

Typical applications

- Food preparation/food retail areas
 - Canteens/serveries/vending areas
 - Recovery/wards/intensive care areas
 - Doctors/dentists/veterinary practices
 - Shower/toilet/changing room areas
 - Corridors/classrooms/swimming pools
- Our Technical Services Department is available for advice on 01502 561364.

Technical data

Property	DIN	Values
Density (g/cm³)	ISO 1183	1.39
E-modulus of elasticity (Mpa)	ISO 527	3550
Impact resistance (KJ/m²)	ISO 179/1eU	
+20°C		Without rupture
0°C		Without rupture
-20°C		Without rupture
Flexural strength (Mpa)	ISO 178	79.8
Tensile strength (Mpa)	ISO 527	48
Shore-hardness D	ISO 868	79
Surface resistance ROE (Ω)	DIN IEC 60 167	2.00E +14
Volume Resistance RD (Ω)	DIN IEC 60 093	6.90E +13
Dielectric strength (KV/mm)	DIN IEC 243	16.8
Dielectric constant	53483	3.2
Dielectric loss index	53483	0.02
Thermal conductivity - 'K Value' (W/mK)	52612	0.16
"U" value (bonded to 100mm block wall (W/m² °C)	52612	1.8
Expansion coefficient at 20°C after 1 h storage at 90°C (10⁻⁴/K)	53752	7.10⁻⁵
Compressive strength (N/mm²)	53454	70
Vicat softening point VST/B (°C)	ISO 306	80
Heat distortion temperature (°C)	ISO 75-2	60
Water absorption (%)	ISO 62	0.09
Moisture vapour transmission rate (MVTR)	ASTME96	0.120 g/m²/24hrs
Water vapour resistivity	ASTME96	3.82 x 10⁻⁹GN.S/Kg.m
Light reflectance values (LRV)	D65 artificial daylight	68-93 (ask for details)
Flammability		
Surface spread of flame	BS 476 Part 7 1987	Class 1
Fire propagation	BS 476 Part 6 1989	Class 0*
		(*when fixed to a non-combustible substrate)

for further information or technical advice

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e-mail: walls@altro.com or explore www.altro.com



Altro Whiterock™ hygienic wall and ceiling systems

ISO 9001:2000SGSUKAS QUALITY MANAGEMENT 005

ISO 14001:2004SGSUKAS ENVIRONMENTAL MANAGEMENT 005

Data sheet

'EU' grade - extruded W140/141, Altro Whiterock Illusions

MAY 2006

A patterned extruded base sheet for areas requiring a decorative appearance. Also suitable where sheet may come into contact with food.

Description

- Extruded semi-rigid PVCu sheet.
- Colour: 24 patterns
- Ranges: Marble, Leaf, Cloud, Granite
- Surface finish: Satin
- Thickness: 2.5mm
- Size: 2500 x 1220mm (W140)
3000 x 1220mm (W141)
- Weight: 3.5 kg per m²
- Maximum service temp: 60°C

Altro Whiterock W140/141 foil faced PVCu extruded sheet is supplied with a protective film on its face which can be left in place until the room is ready for use. This also helps to protect the surface from dust while other trades are in the area. It is ideal for applications requiring a hygienic easy-to-clean, almost maintenance free wall finish, which conforms to UK hygiene requirements.

Fixing

The sheets can be fixed directly to most dry substrates depending on its surface suitability, using one of the following methods:

1. AltroFix® W139 all over adhesive
2. AltroFix® W173 all over adhesive
3. AltroFix® W157 all over adhesive

Cutting

A jigsaw is the best method, however a fine toothed hand saw can also be used.

Jointing

- see relevant detailed drawings
1. A high impact colour co-ordinating extruded PVCu 'H' joint trim (available in two part or single part profiles), incorporating a watertight seal at the mouth of the joint, which is unique to Altro Whiterock.
 2. Silicone joint 3-4mm wide.
Note: Altro Whiterock Illusion panels cannot be hot welded.

Internal/external corners

Altro Whiterock is normally thermoformed on-site, so that window and door reveals are neatly clad without an edge joint. However, pre-formed corners are available for the self-installer to cope with these details. Vulnerable external corners are usually over-clad with stainless steel corner protectors, to a height of 1200mm, other sizes available.

Cleaning

Regular cleaning using a soft cloth and a suitably diluted mild detergent is all that is normally required. Stubborn marks can be removed with Altro Cleaner A859 or non-abrasive domestic type cream bath cleaner.

Do not use abrasive pads or wire wool.

Do not clean above 60°C.

Cleaning cards are available on request.

Chemical resistance

Resistant to a wide range of chemicals, specific details on request.

Availability

10 days - (Limited stocks).

Storage & conditioning (on-site)

Sheets should be stored flat, fully supported and left for 24 hours to attain the ambient room temperature prior to installation (min 14°C).

ALTRO WHITEROCK™ HYGIENIC WALL AND CEILING SYSTEMS 'EU' GRADE - EXTRUDED W136/137, ALTRO WHITEROCK PASTELS

Limitations of use

Altro Whiterock W140/141 has a maximum working temperature of 60°C. For temperatures above this use stainless steel. Stainless steel must be used for all open flame areas (available cut to size). If a layout showing the position of equipment can be supplied, we will provide specific advice as to the best combination of materials to use

Typical applications

- Receptions/leisure/retail areas
 - Canteens/serveries/vending areas
 - Recovery/wards/intensive care areas
 - Doctors/dentists/veterinary practices
 - Shower/toilet/changing room areas
 - Corridors/classrooms/swimming pools
- Our Technical Services Department is available for advice on 01502 561364.

Technical data

Property	DIN	Values
Density (g/cm³)	ISO 1183	1.39
E-modulus of elasticity (Mpa)	ISO 527	3550
Impact resistance (KJ/m²)	ISO 179/1eU	
+20°C		Without rupture
0°C		Without rupture
-20°C		Without rupture
Flexural strength (Mpa)	ISO 178	79.8
Tensile strength (Mpa)	ISO 527	48
Shore-hardness D	ISO 868	79
Surface resistance ROE (Ω)	DIN IEC 60 167	2.00E +14
Volume Resistance RD (Ω)	DIN IEC 60 093	6.90E +13
Dielectric strength (KV/mm)	DIN IEC 243	16.8
Dielectric constant	53483	3.2
Dielectric loss index	53483	0.02
Thermal conductivity - 'K Value' (W/mK)	52612	0.16
"U" value (bonded to 100mm block wall (W/m² °C)	52612	1.8
Expansion coefficient at 20°C after 1 h storage at 90°C (10⁻⁴/K)	53752	7.10⁻⁵
Compressive strength (N/mm²)	53454	70
Vicat softening point VST/B (°C)	ISO 306	80
Heat distortion temperature (°C)	ISO 75-2	60
Water absorption (%)	ISO 62	0.09
Moisture vapour transmission rate (MVTR)	ASTME96	0.120 g/m²/24hrs
Water vapour resistivity	ASTME96	3.82 x 10⁻⁹GN.S/Kg.m
Light reflectance values (LRV)	D65 artificial daylight	90-95 (ask for details)
Flammability		
Surface spread of flame	BS 476 Part 7 1987	Class 1
Fire propagation	BS 476 Part 6 1989	Class 0*
		(*when fixed to a non-combustible substrate)

for further information or technical advice

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Altro Whiterock™ hygienic wall and ceiling systems



Data sheet
'EU' grade - extruded W160/161,
Altro Chameleon™

MAY 2006

A high gloss, solid colour sheet for areas requiring a decorative appearance. Also suitable where sheet may come into contact with food.

Description

Extruded semi-rigid PVCu sheet.
Colour: 16 colours
Surface finish: Gloss
Thickness: 2.5mm
Size: 2500 x 1250mm
3000 x 1220mm
Weight: 3.6kg per m²
Maximum service temp: 60°C

Altro Chameleon W160/161 PVCu extruded sheet is supplied with a protective film on its face, which can be left in place until the room, is ready for use. This also helps to protect the surface from dust while other trades are in the area. It is ideal for applications requiring a hygienic easy-to-clean, almost maintenance free wall finish, which conforms to UK hygiene requirements.

Fixing

The sheets can be fixed directly to most dry substrates depending on its surface suitability, using one of the following methods:

1. AltroFix W139 all over adhesive
2. AltroFix W173 all over adhesive
3. AltroFix W157 all over adhesive

Cutting

A jigsaw is the best method, however a fine toothed handsaw can also be used.

Jointing

- see relevant detailed drawings
1. A high impact colour co-ordinating extruded PVCu 'H' joint trim (available in two part or single part profiles), incorporating a watertight seal at the mouth of the joint, which is unique to Altro Whiterock.
 2. Silicone joint 3-4mm wide.
 3. Hot welded - ask for details.

Internal/external corners

Altro Chameleon is normally thermoformed on site, so that window and door reveals are neatly clad without an edge joint. However, pre-formed corners are available for the self-installer to cope with these details.

Cleaning

Regular cleaning using a soft cloth and a suitably diluted mild detergent is all that is normally required.
Do not use abrasive pads or wire wool.
Do not clean above 60°C.
Cleaning cards are available on request.

Chemical resistance

Resistant to a wide range of chemicals, specific details on request.

Availability

10 days - (Limited stocks).

Storage & conditioning (on-site)

Sheets should be stored flat, fully supported and left for 24 hours to attain the ambient room temperature prior to installation (min 14°C).

Limitations of use

Altro Chameleon W160/161 has a maximum working temperature of 60°C. For temperatures above this use stainless steel. Stainless steel must be used for all open flame areas (available cut to size). If a layout showing the position of equipment can be supplied, we will provide specific advice as to the best combination of materials to use

Typical applications

- Receptions/leisure/retail areas
 - Canteens/serveries/vending areas
 - Recovery/wards/intensive care areas
 - Doctors/dentists/veterinary practices
 - Shower/toilet/changing room areas
 - Corridors/classrooms/swimming pools
- Our Technical Services Department is available for advice on 01502 561364.

Technical data

Property	DIN	Values
Density (g/cm³)	53479	1.38
Modulus of elasticity (Mpa)	53455	3200
Yield point street (Mpa)	53455	70
Impact resistance Charpy at 20°C with U notched sample (Kj/m²)	53453	2.15
Vicat point at 5kg (°C)	53460	72
Coefficient of thermal expansion (10⁻⁴/K)	53328	0.00007
Maximum service temperature (°C)	Veka	60
Thermal Conductivity (W/m.K)	52612	0.16
Hardness Shore D	53505	77
Steel ball impact sample of 80x80 on a hole of 50mm diameter (Joule)	Veka	12
Light transmission (%)	ASTM D 1003	87 +/-1.5
Haze (%)	ASTM D 1003	1 +/-0.50
Value L*	Cielab 1976	86.0
Value a*	Cielab 1976	-3.4
Value b*	Cielab 1976	3.8
Delta E*	Cielab 1976	1.5
Light reflectance values (LRV)	D65 artificial daylight	26-77 (ask for details)
Flammability		
Surface spread of flame	BS 476 Part 7 1987	Class 1
Fire propagation	BS 476 Part 6 1989	Class 0*

Subject to change without notice.

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Altro Whiterock™ hygienic wall and ceiling systems

Data sheet

'EU' grade - wall cladding W001/W133, Altro Whiterock laminated

MAY 2006

Laminated sheet suitable for particularly high impact areas and where sheet comes into contact with food.

Description

Altro Whiterock W001/W133 is a semi-rigid sheet produced by laminating multiple plies of calendered PVCu at high temperature and pressure.

Colour: White and patterns

Pattern ranges: Elgin and Begonia (ask for details)

Surface finish: Satin

Thickness: 2.5mm

Weight: 3.5 kg per m²

Maximum service temp: 60°C

Altro Whiterock W001/W133 is supplied with a protective film on its face which can be left in place until the room is ready for use. This also helps to protect the surface from dust while other trades are in the area. It is ideal for applications requiring a hygienic easy-to-clean, almost maintenance free wall finish. The manufacturing process results in a material which has exceptional resistance to impact.

Conforms to EU Directives on health & hygiene.

Fixing

The sheets can be fixed directly to most dry substrates depending on its surface suitability, using one of the following methods:

1. AltroFix® W139 all over adhesive
2. AltroFix® W173 all over adhesive
3. AltroFix® W157 all over adhesive

Cutting

A jigsaw is the best method, however a fine toothed hand saw can also be used.

Jointing

- see relevant detailed drawings
1. A high impact extruded PVCu 'H' joint trim (available in two part or single part profiles), incorporating a watertight seal at the mouth of the joint, which is unique to Altro Whiterock. An alternative is a powder coated aluminium "H" joint used for extra impact or heat resistance.
 2. Silicone joint 3-4mm wide.
 3. Hot welded joint - ask for details.

Internal/external corners

- see relevant detailed drawings

Altro Whiterock is normally thermoformed on-site, so that window and door reveals are neatly clad without an edge joint. However, profiles are available for the self-installer to cope with these details using a two part internal/external corner system. Vulnerable external corners are usually over-clad with stainless steel corner protectors, to a height of 1200mm, or longer depending on requirements.

Cleaning

Regular cleaning using a soft cloth and a suitably diluted mild detergent is all that is normally required. Stubborn marks can be removed with Altro Cleaner A859 or non-abrasive domestic type cream bath cleaner.

Do not use abrasive pads or wire wool.

Do not clean above 60°C.

Cleaning cards are available on request.

Chemical resistance

Resistant to a wide range of chemicals, specific details on request.

Availability

W001 - 3-5 days

W133 - special order

Storage & conditioning (on-site)

Sheets should be stored flat, fully supported and left for 24 hours to attain the ambient room temperature prior to installation (min 14°C).

Limitations of use

Altro Whiterock W001/W133 has a maximum working temperature of 60°C. For temperatures above this use stainless steel. Stainless steel must be used for all open flame areas (available cut to size). If a layout showing the position of equipment can be supplied, we will provide specific advice as to the best combination of materials to use.

Typical applications

- Commercial kitchens
 - Laboratories
 - Pharmaceutical areas
 - Food manufacturing areas
 - Shower/toilet/changing room areas
- Our Technical Services Department is available for advice on 01502 561364.

Technical data

Flammability	Surface spread of flame	Class 1*	BS 476 Part 7 1987
Fire propagation		Class 0†	BS 476 Part 6 1989
Drop weight impact strength at 23°C	% failure	0	BS3757 1978
at 0°C	% failure	0	
Elastic modules in bend	MPa	2.5 x 10 ³	BS3757 1978
Brinell hardness		15	BS240
Coefficient of linear expansion	per deg. °C	8 x 10 ⁻⁵	
Thermal conductivity	cal/cm/sec (deg C/cm)	4.1 x 10 ⁻⁴	
Maximum service temperature	°C	60	
Dimensional stability	%	0-2	BS3757 1978
Specific gravity	g/cm ³	1.388	
Light reflectance values (LRV)		96	D65 artificial daylight

* Tests carried out on sheet of 2.5mm and 3mm thickness.
† When installed on a non-combustible substrate.
Altro Walls is an ISO9002 accredited company.

for further information or technical advice

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Altro Whiterock™ hygienic wall and ceiling systems

Data sheet 'EU' grade - extruded P250 PVCu ceiling boards, Altro ceiling system



Economical ceiling system for general purpose use. Altro suitable where boards may come into contact with food. Ideal for hygienic and wet environments. Can be fixed direct or suspended.

Description

Extruded rigid PVCu boards.
Colour: White
Surface finish: Satin
Thickness: 9mm
Sizes:
P250/60 6000 x 250 x 9mm
P250/50 5000 x 250 x 9mm
P250/40 4000 x 250 x 9mm
P250/30 3000 x 250 x 9mm
Weight: 2.3 kg per m²
Maximum service temp: 60°C

The Altro P250 twin wall tongue and grooved ceiling system is extruded from high grade PVCu in double skin profiles linked with PVCu fins to form a rigid, durable board. It is ideal for applications requiring a hygienic, easy to clean, almost maintenance free ceiling finish, which conforms to UK hygiene requirements. It is one of the few ceiling systems which can be hosed down in-situ.

Fixing

- Mechanically fixed to any substrate which provides a fixing point at a maximum 600mm centres, e.g. timber joists, timber battens, PVCu battens, galvanised steel battens, or direct to plasterboard.
- Concrete soffits should be counter battened with galvanised steel battens (or similar) at maximum 600mm centres.
- When fixing directly to the underside of plasterboard, use 25mm wafer head screws. Fixings to correspond with joists above.
- Mechanically fixed to Gyproc MF type suspended grid system with 13mm wafer head screws.

Jointing

1. A high quality colour matched "H" profile joint strip (Ref: P258) for joining boards end-to-end. Available in 3.0m or 6.0m lengths. Mechanically fixed with 13mm or 25mm wafer head screws.
2. A high quality extruded pliable joint strip (Ref: P253) available in 5.0m lengths, for joining boards on irregular angles (e.g. sloping ceilings). Fixed with AltroFix 25NF contact adhesive to the edges of adjoining boards.

Internal/external corners

High quality, colour matched extruded PVCu corner profiles (Ref: P255 & P257) available for internal and external angles. Typically used when forming bulkheads or cladding around beams.

Cutting

A jigsaw is the best method, however a fine toothed hand saw can also be used.

Cleaning

Regular cleaning using a soft cloth and a suitably diluted mild detergent is all that is normally required. Stubborn marks can be removed with Altro Cleaner A859 or non-abrasive domestic type cream bath cleaner.

Do not use abrasive pads or wire wool.

Do not clean above 60°C.

Cleaning cards are available on request.

Chemical resistance

Resistant to a wide range of chemicals, specific details on request.

Availability

Ex-stock.

Storage & conditioning (on-site)

Boards should be stored flat, fully supported and left for 24 hours to attain the ambient room temperature prior to installation (min 14°C).

ALTRO WHITEROCK™ HYGIENIC WALL AND CEILING SYSTEMS
'EU' GRADE - WALL CLADDING W001/W133, ALTRO WHITEROCK LAMINATED

Limitations of use

Altro P250 PVCu ceiling board has a maximum working temperature of 60°C. When fixing the ceiling system to a stainless steel canopy, the edge of the boards and P259 perimeter trim must be isolated from the canopy. A 3-4mm silicone joint must be allowed between the canopy and PVCu components.

Typical applications

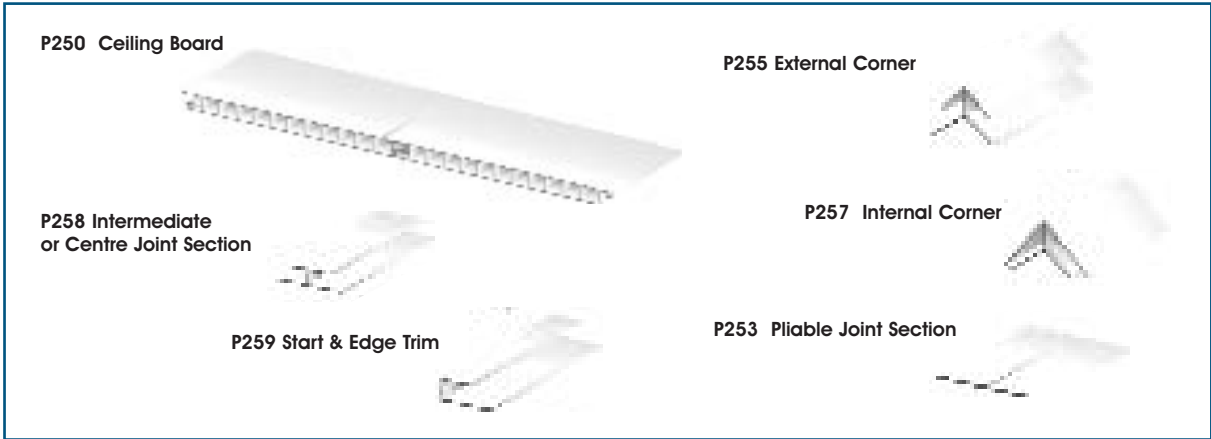
- Commercial kitchens
- Laboratories
- Pharmaceutical areas
- Food manufacturing areas
- Shower/toilet/changing room areas

Our Technical Services Department is available for advice on 01502 561364.

Technical data

Property	DIN	Values
Density (g/cm³)	53479	1.5
Thermal Conductivity (W/m.K)	53481	0.15
Coefficient of thermal expansion (m/mK)	53752	5 x 10 ⁻⁵
Vicat softening point VST/B (°C)	53460	83
Moisture vapour transmission rate (MVTR)	ASTME96	0.312 g/m²/24hrs
Water vapour resistivity	ASTME96	0.42 x 10 ⁵ GN.S/Kg.m
Flammability		
Surface spread of flame	BS 476 Part 7 1987	Class 1
Fire propagation	BS 476 Part 6 1989	Class 0*
		(*when fixed to a non-combustible substrate)

The ceiling system



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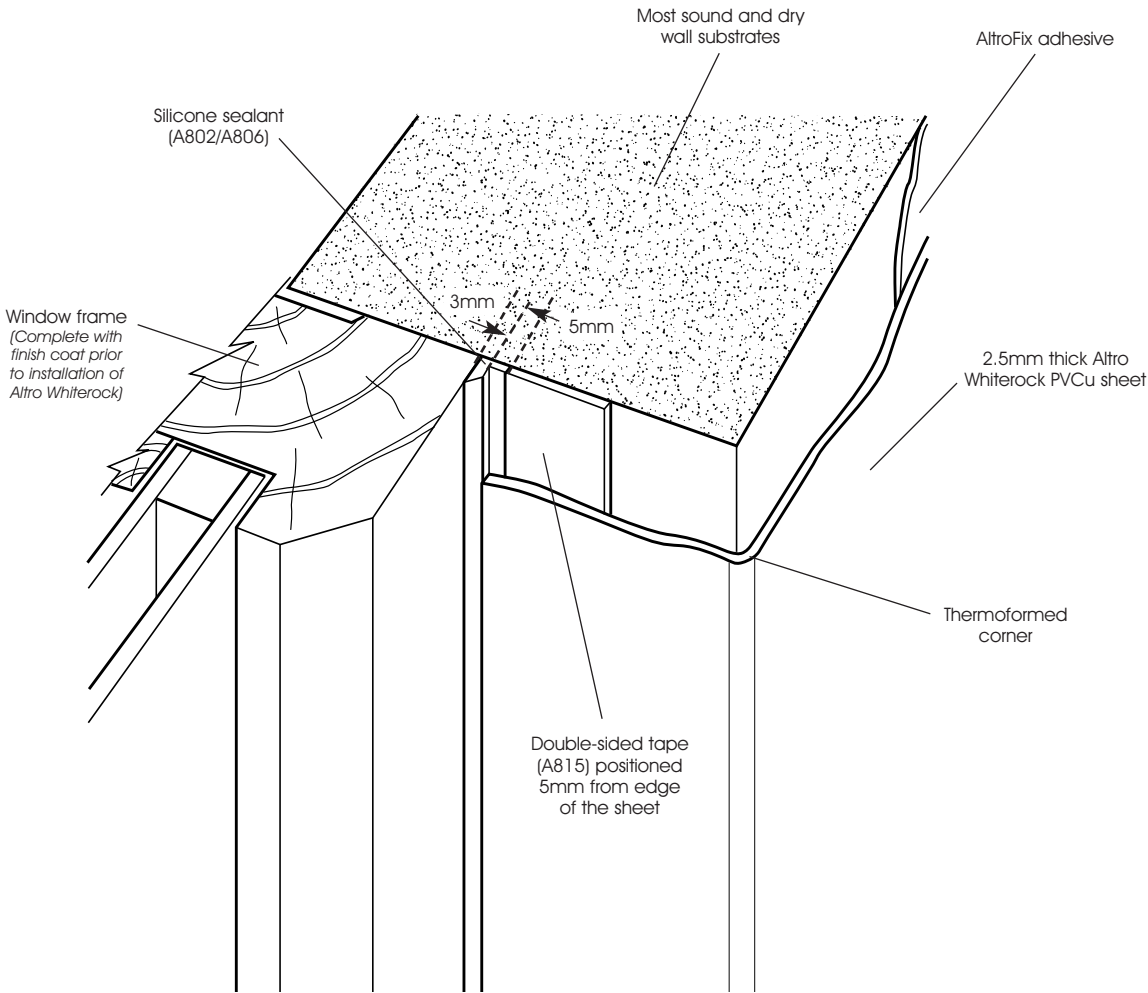
Altro Whiterock™ hygienic PVCu wall cladding to window/door frame detail

typical specification (Ref: W1)

MAY 2006

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick to window or door frame with thermoformed corner fixed with double sided tape (A815) and AltroFix™

W139/W173/W157 adhesive to most sound and dry wall substrates, sealed with silicone sealant (A802/A806).



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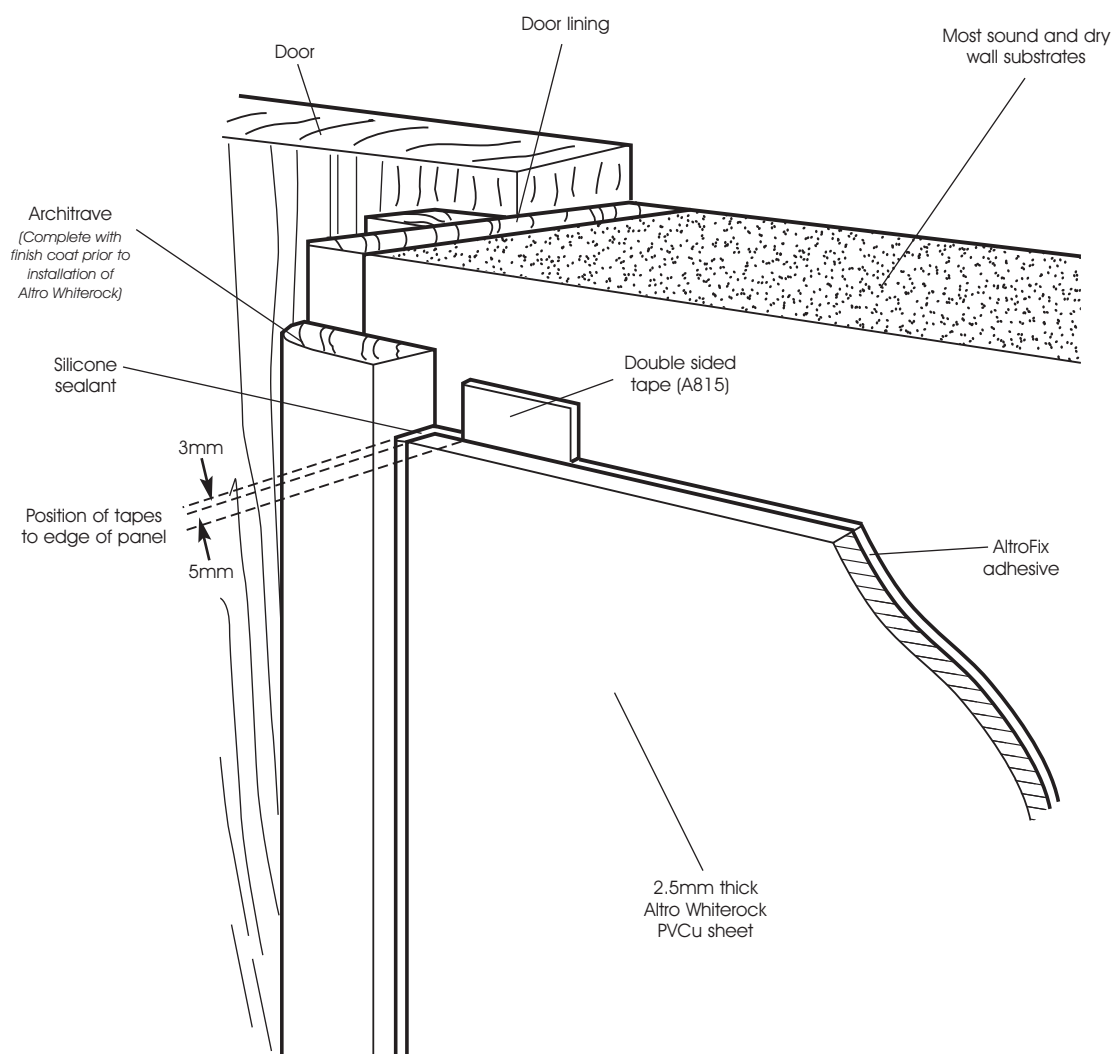
Altro Whiterock™ hygienic PVCu wall cladding to architrave detail

typical specification (Ref: W2)

MAY 2006

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick to door architrave fixed with double sided tape (A815) and AltroFix™ W139/W173/W157 adhesive to

most sound and dry wall substrates, sealed with silicone sealant (A802/A806).



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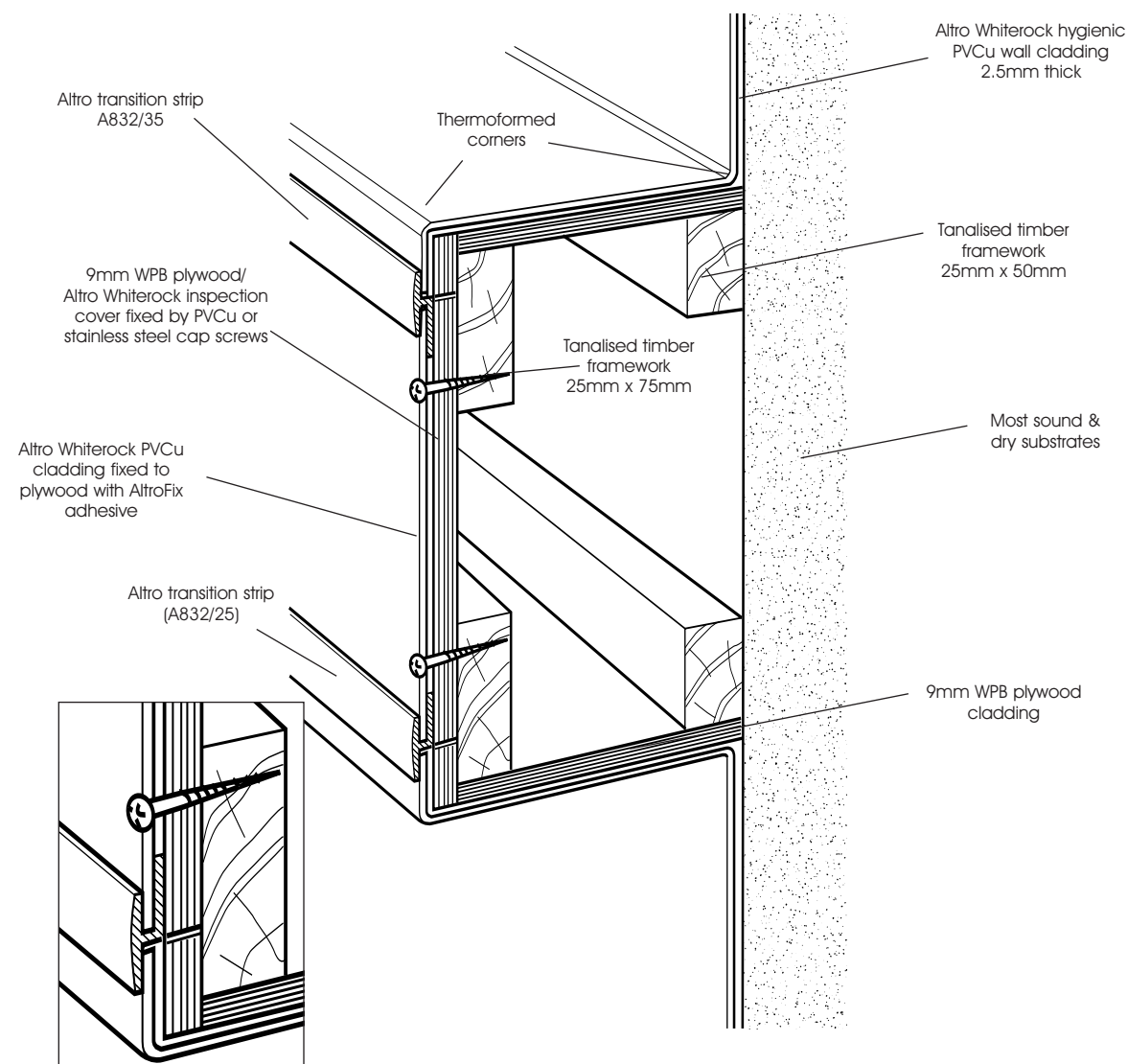
Altro Whiterock™ hygienic PVCu wall cladding to boxing inspection cover detail

typical specification (Ref: W3)

MAY 2006

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick to boxing/inspection cover with thermoformed corners, using Altro transition strip (A832/25) over

tanalised timber framework and 9mm WPB plywood cladding screwed to framework, fixed with AltroFix™ adhesive to plywood.



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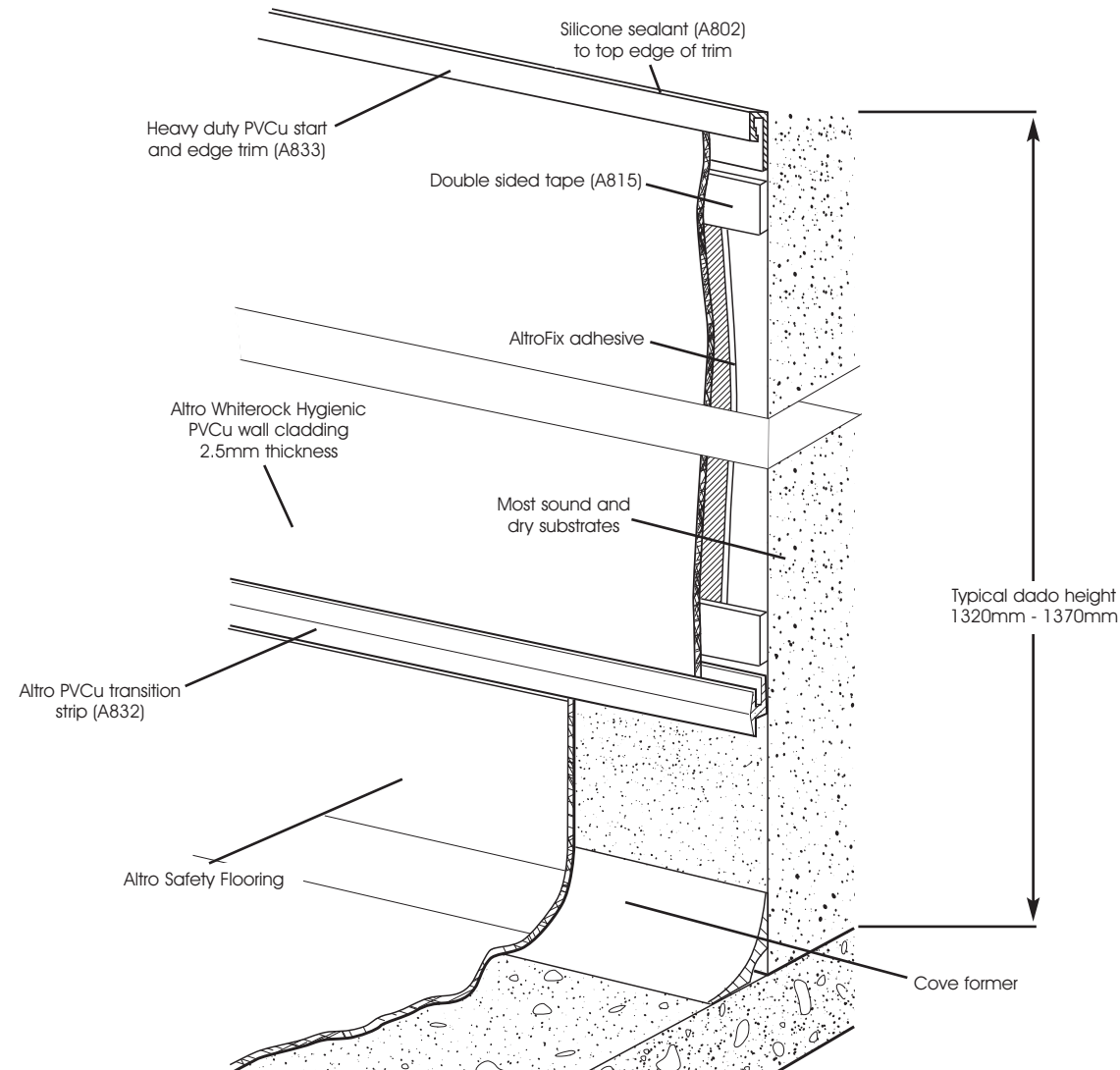
MAY 2006

Altro Whiterock™ hygienic PVCu wall cladding with dado height capping detail

typical specification (Ref: W5)

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed over most sound, dry substrates to a nominal dado height from floor, fixed with AltroFix™

adhesive and double sided tape (A815). Top edge of panel finished with heavy duty PVCu start & edge trim (A833) and sealed to substrate.



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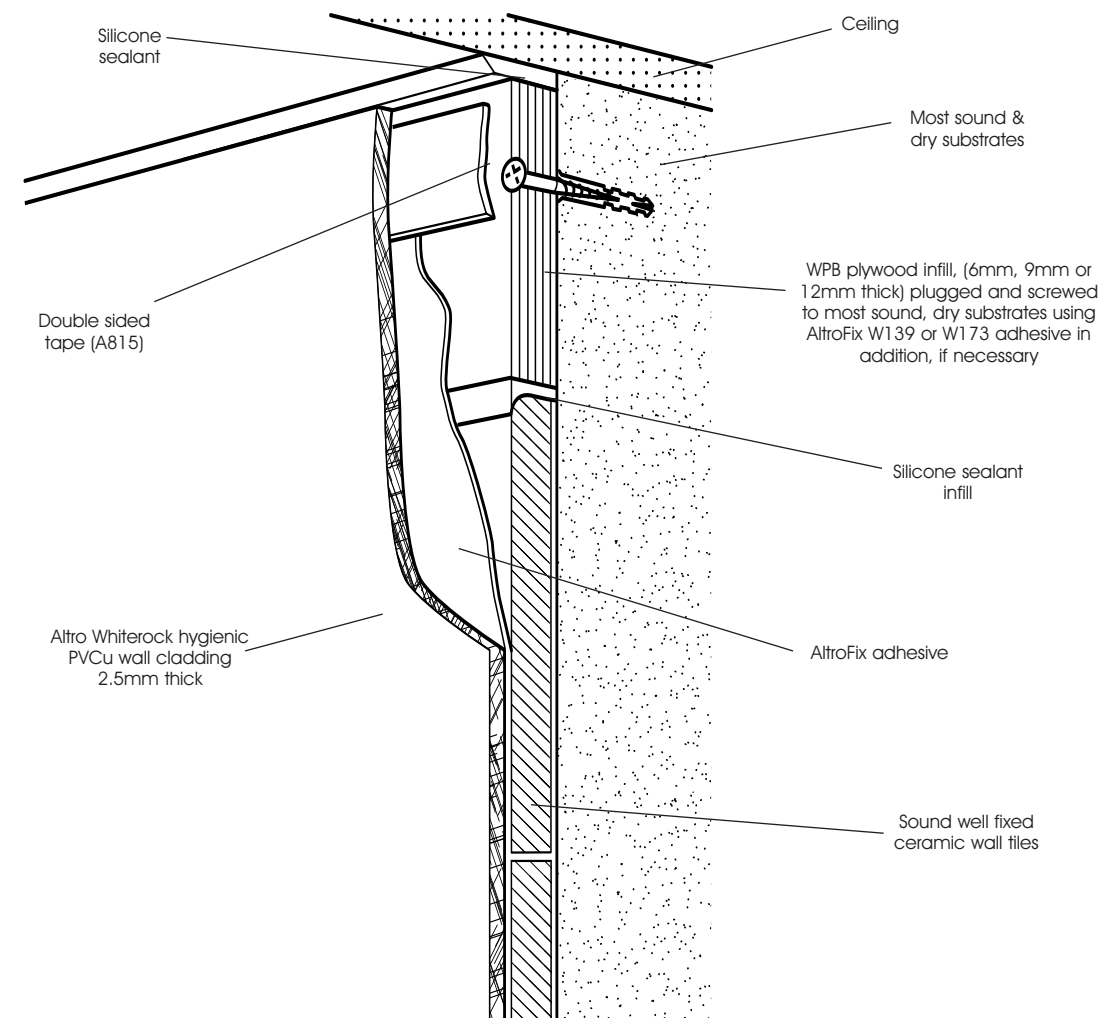
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Altro Whiterock™ hygienic PVCu wall cladding making up above glazed tiles detail

typical specification (Ref: W6)

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick over sound well adhered ceramic wall tiles with WPB plywood infill, (6mm, 9mm or 12mm) plugged and screwed to most sound, dry substrates, use AltroFix™

W139 or W173 adhesive in addition if necessary, PVCu cladding fixed with AltroFix W139 (A814) or W173 (A820) adhesive, double sided tape (A815) and sealed with silicone sealant (A802 or A806).



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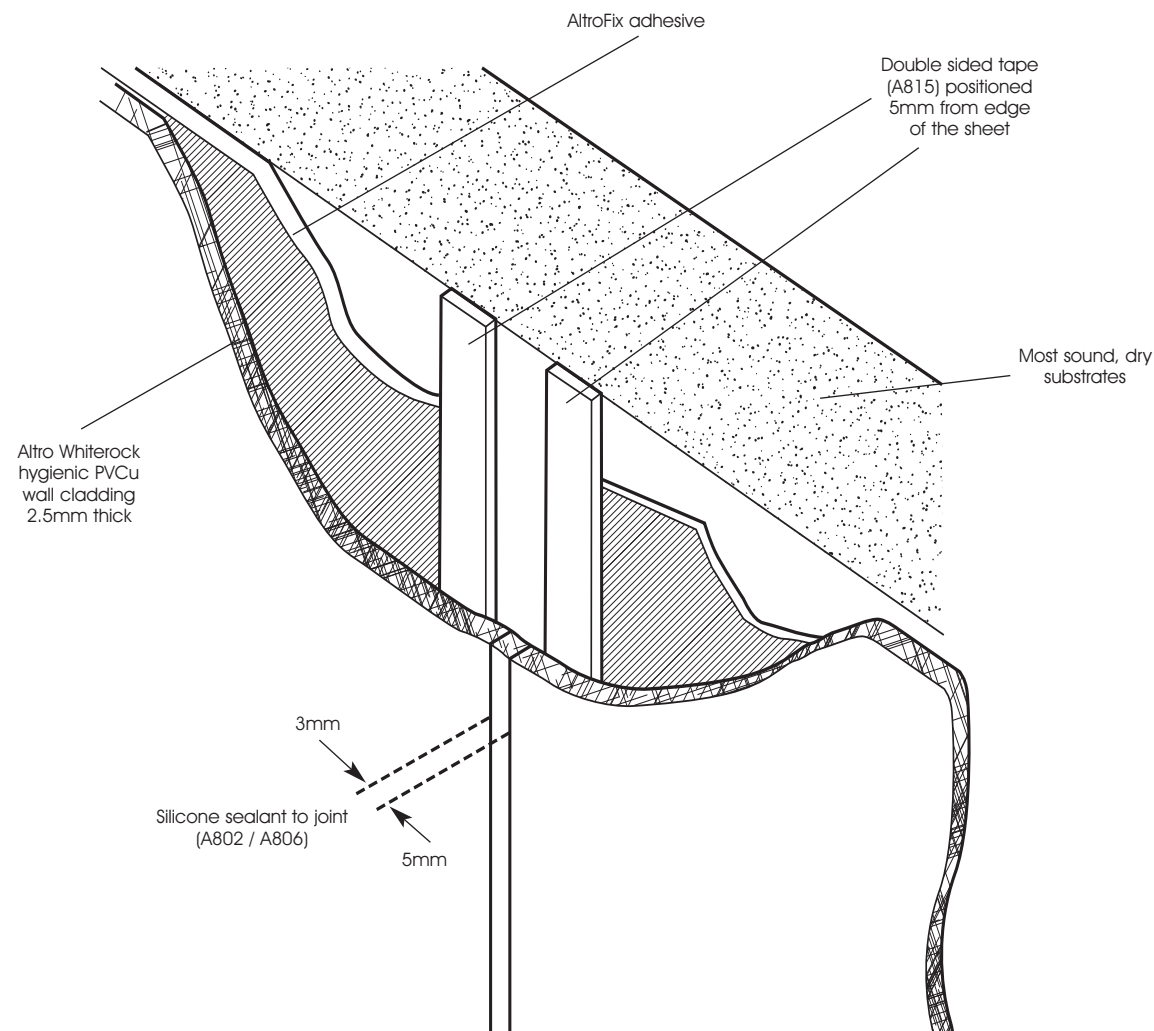
Altro Whiterock™ hygienic PVCu wall cladding silicone joint detail

typical specification (Ref: W7)

MAY 2006

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed over most sound, dry and level substrates, fixed with AltroFix™ adhesive and double sided tape

(A815), positioned approximately 5mm from the edge of the PVCu panel. Joint spacing with 3mm-5mm gap. Seal joint with silicone sealant (A802/A806).



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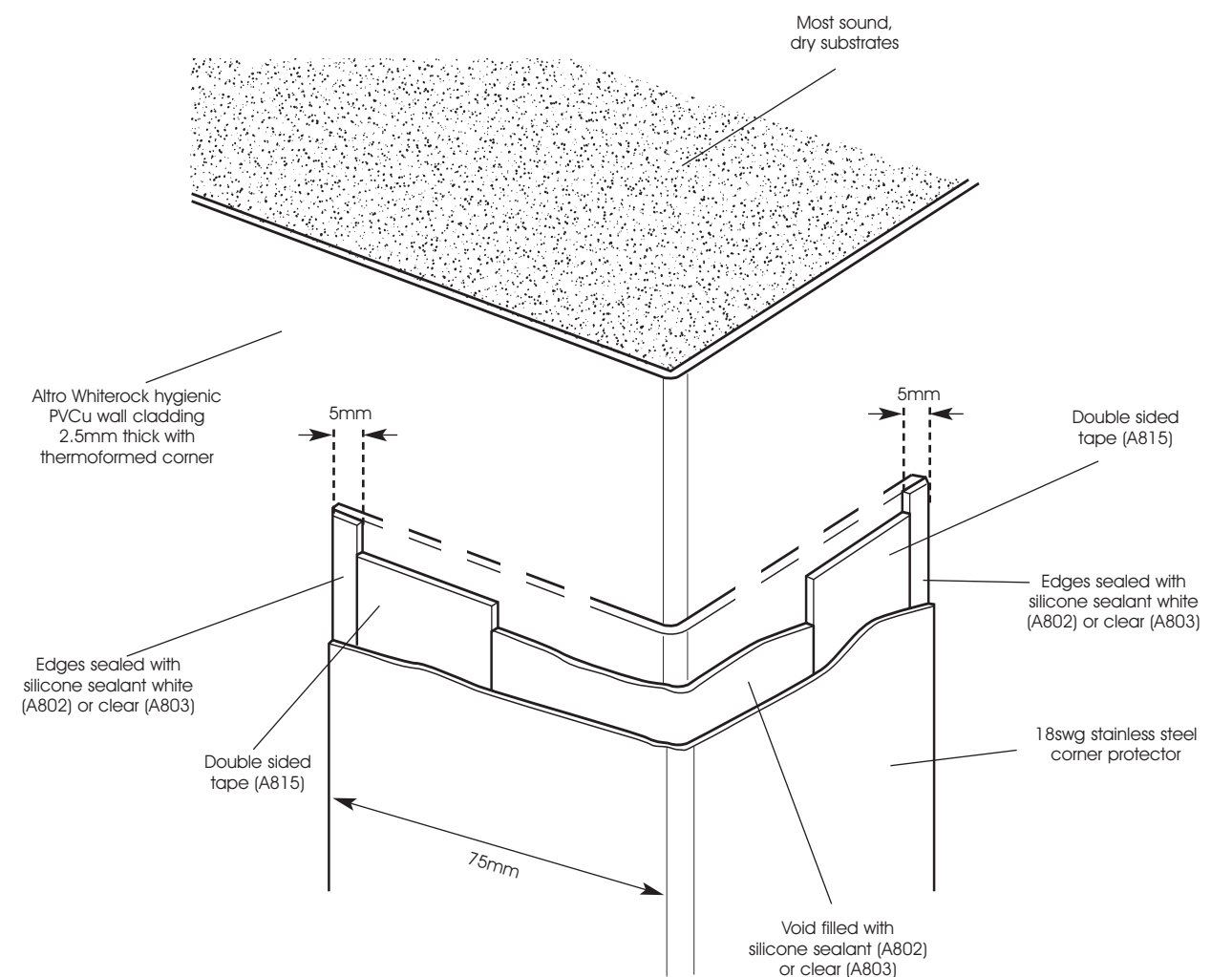
Altro Whiterock™ hygienic PVCu wall cladding with corner protector fixing detail

typical specification (Ref: W8)

MAY 2006

Altro Whiterock hygienic PVC wall cladding 2.5mm thick with thermoformed corner over most sound, dry substrates, overlaid with 18swg stainless steel corner protector 1200 or 75 x 75mm. (Longer sections are

available to special order) fixed with 2mm double sided pressure sensitive tapes (A815), void filled with silicone sealant (A802) and edges sealed with silicone sealant white (A802) or clear (A803).



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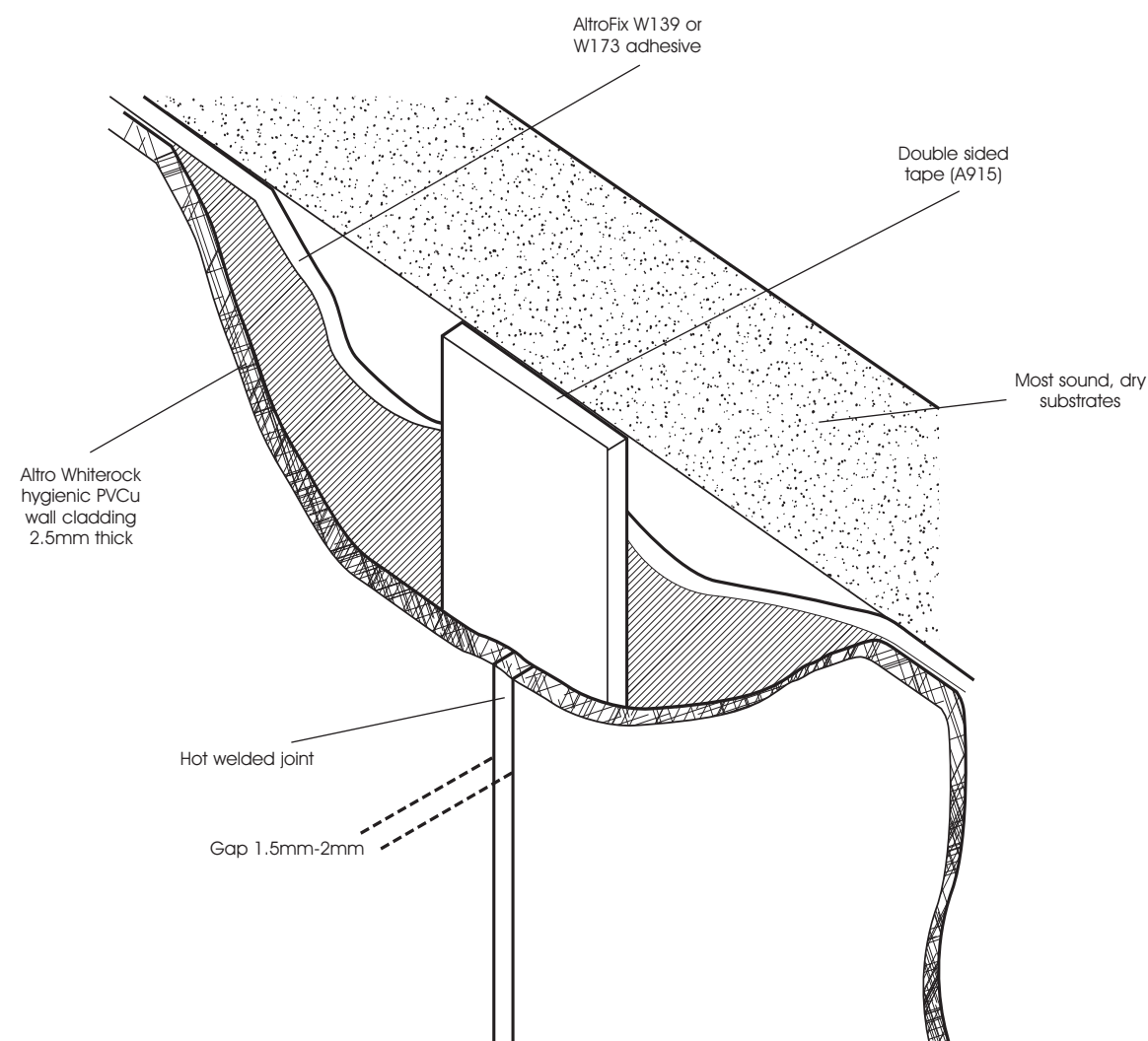
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Altro Whiterock™ hygienic PVCu wall cladding welded to Altro Whiterock hygienic PVCu wall cladding detail

typical specification (Ref: W9)

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed over most sound, dry and level substrates, fixed with AltroFix™ W139 adhesive (A814) or W173

adhesive (A820) and double sided tape (A915), between sheets. Hot welded joint as per Altro installation recommendations.



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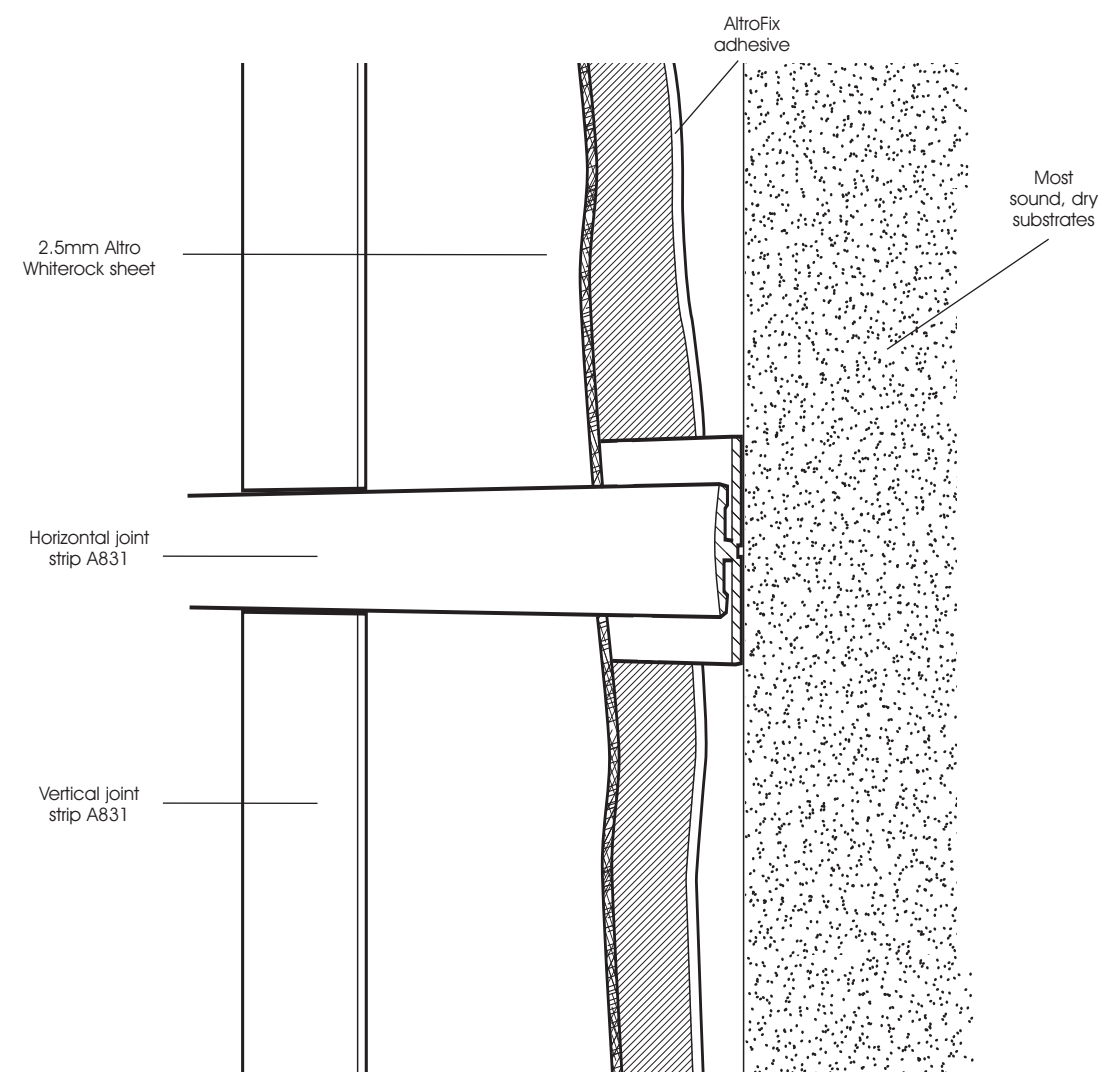
MAY 2006

Altro Whiterock™ hygienic PVCu wall cladding horizontal joint section detail

typical specification (Ref: W10)

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed above standard sheet height over most

sound, dry substrates, with horizontal and vertical joints formed from PVCu joint strip A831.



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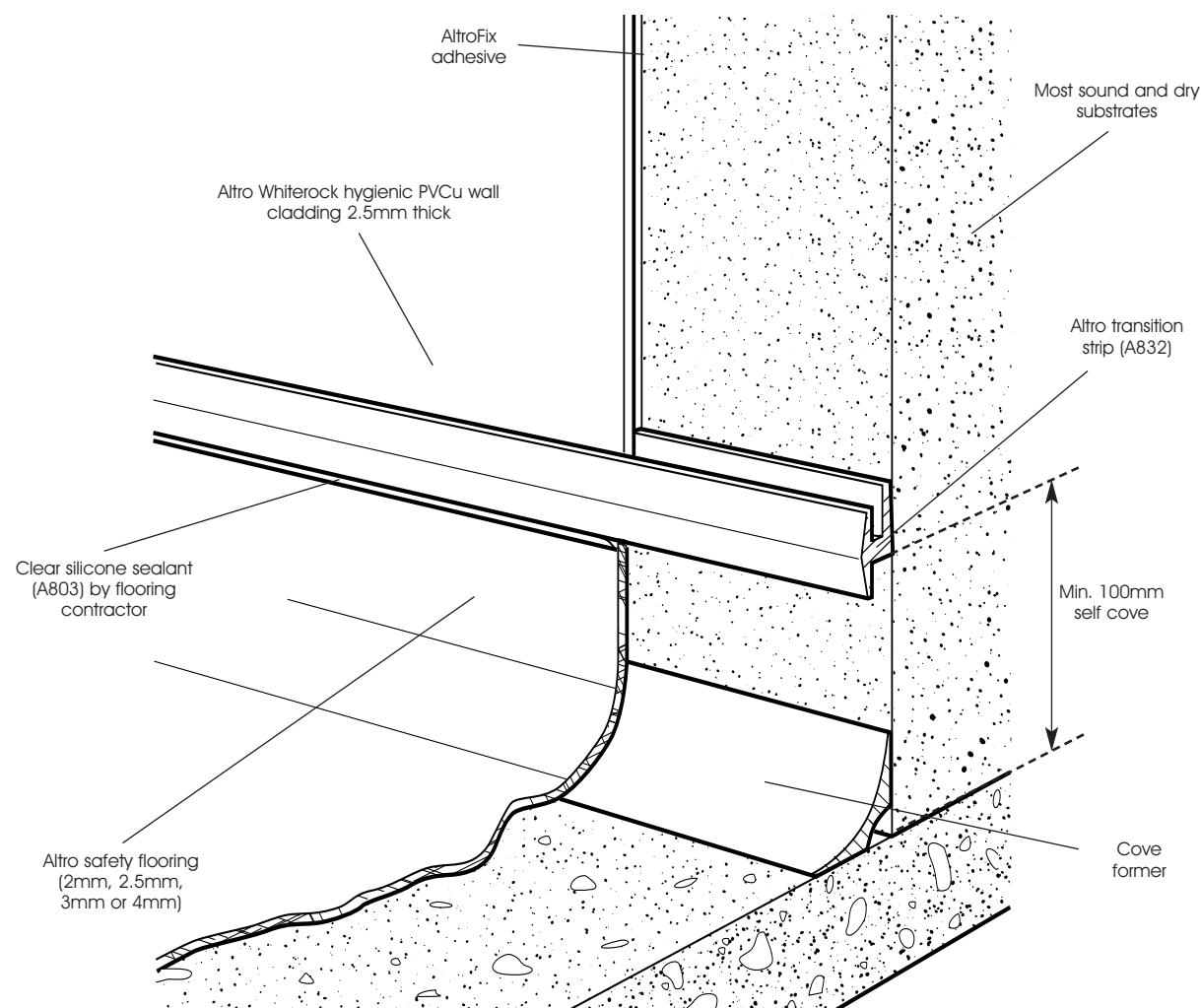
Altro Whiterock™ hygienic PVCu wall cladding to Altro safety flooring detail

typical specification (Ref: WF2)

MAY 2006

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed over most sound, dry substrates, with the appropriate AltroFix™ adhesive. With Altro PVCu transition

strip (A832) to Altro safety flooring (2mm, 2.5mm, 3mm or 4mm) self-coved over cove former sealed with clear silicone sealant (A803) by flooring contractor.



for further information or technical advice

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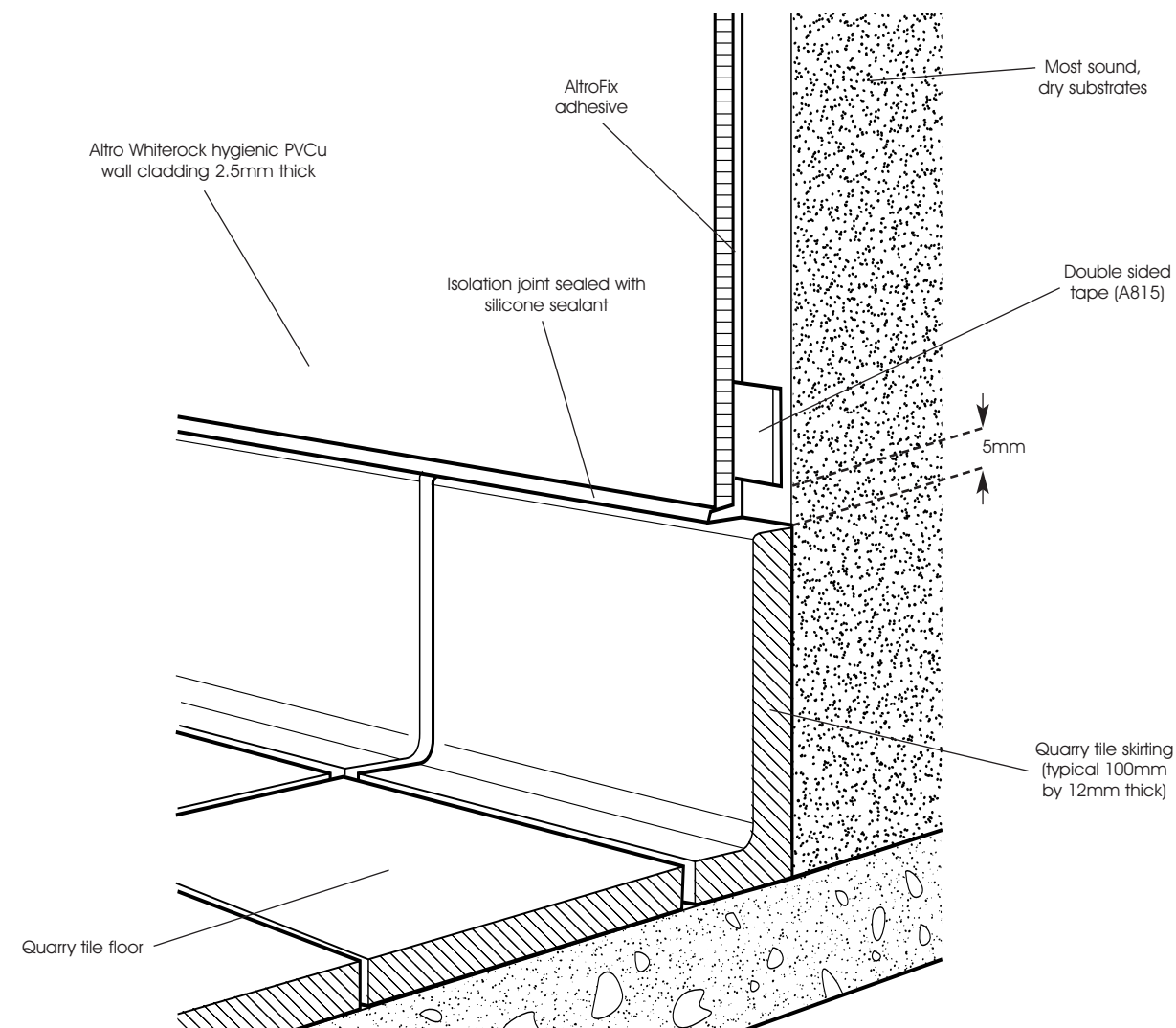
Altro Whiterock™ hygienic PVCu wall cladding to quarry tile floor detail

typical specification (Ref: WF3)

MAY 2006

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed over most sound, dry substrates, to quarry tile skirting (typical 100mm by 12mm thick with similar

floor tiles) fixed with the appropriate AltroFix™ adhesive and double sided tape (A815) sealed with silicone sealant (A802 or A806).



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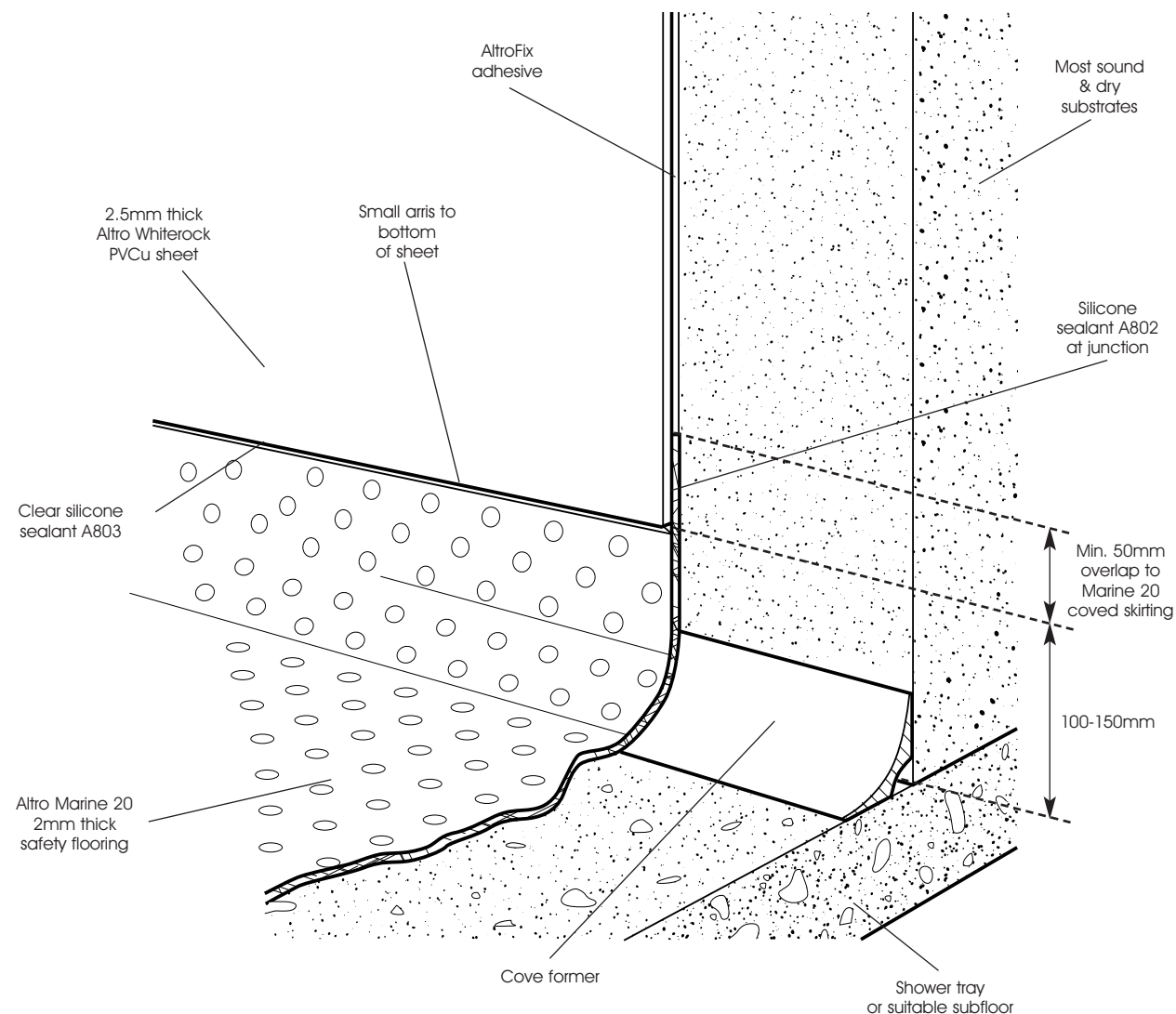
Altro Whiterock™ hygienic PVCu wall cladding to Altro Marine™ 20 safety flooring shower tray detail

typical specification (Ref: WF4)

MAY 2006

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed over most sound, dry substrates, overlapping self-coved Altro Marine 20 2mm thick

safety flooring, fixed with the appropriate AltroFix™ adhesive, sealed with silicone sealant (A802) at the overlap junction. Clear silicone to bottom of sheet.



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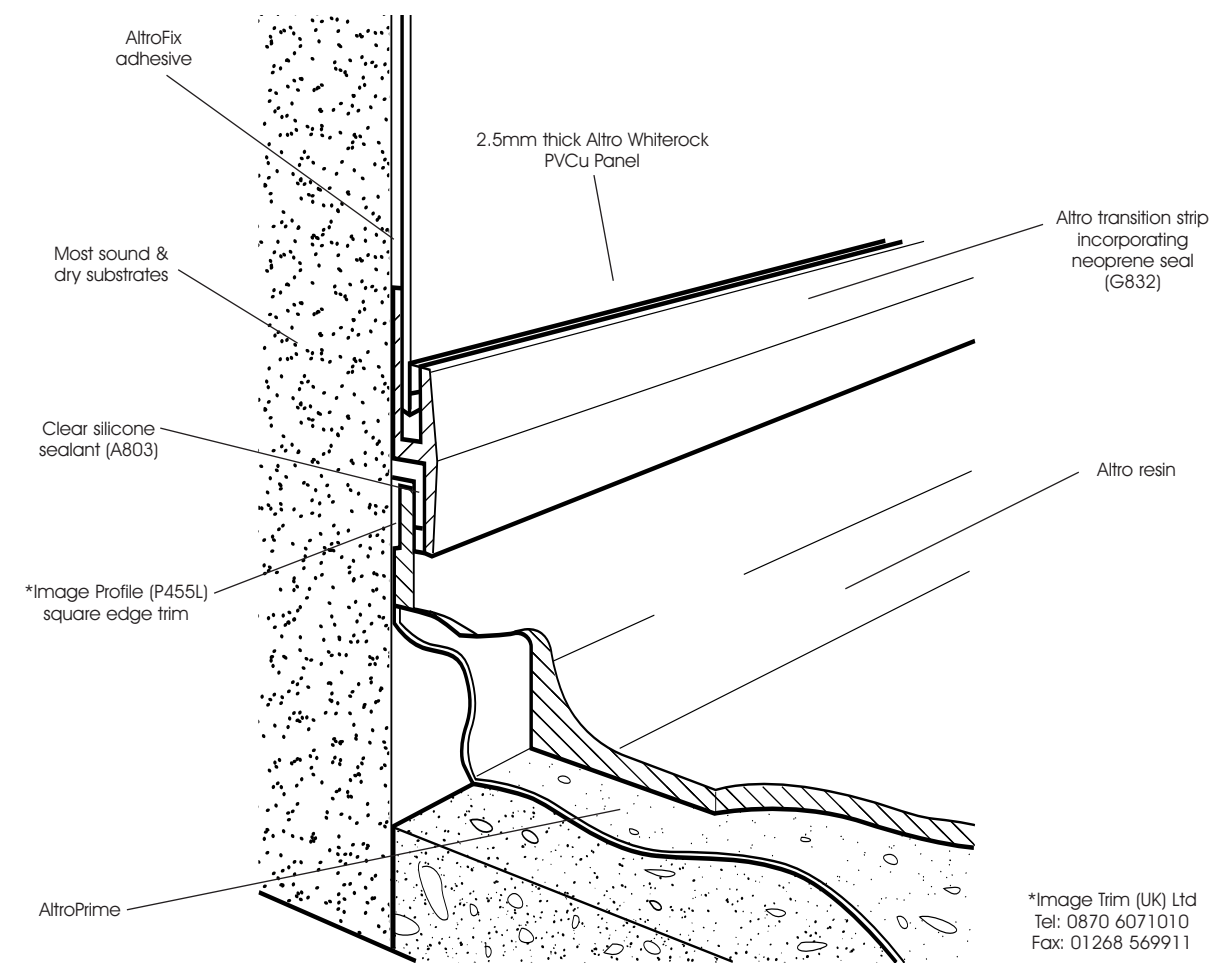
Altro Whiterock™ hygienic PVCu wall cladding to Altro resin flooring detail

typical specification (Ref: WF5)

MAY 2006

Altro resin flooring applied first (to thickness recommended for type/application) and self coved up to a minimum of 100mm to front edge of Image Profile (P445L) (by Image Trim (UK) Ltd.), Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed over

most sound, dry substrates. Maintain 7mm gap above top edge of resin, install Altro transition strip (G832) incorporating neoprene seal with 5mm gap between wall sheet bottom edge and centre web of strip, seal over resin edge with clear silicone sealant (A803).



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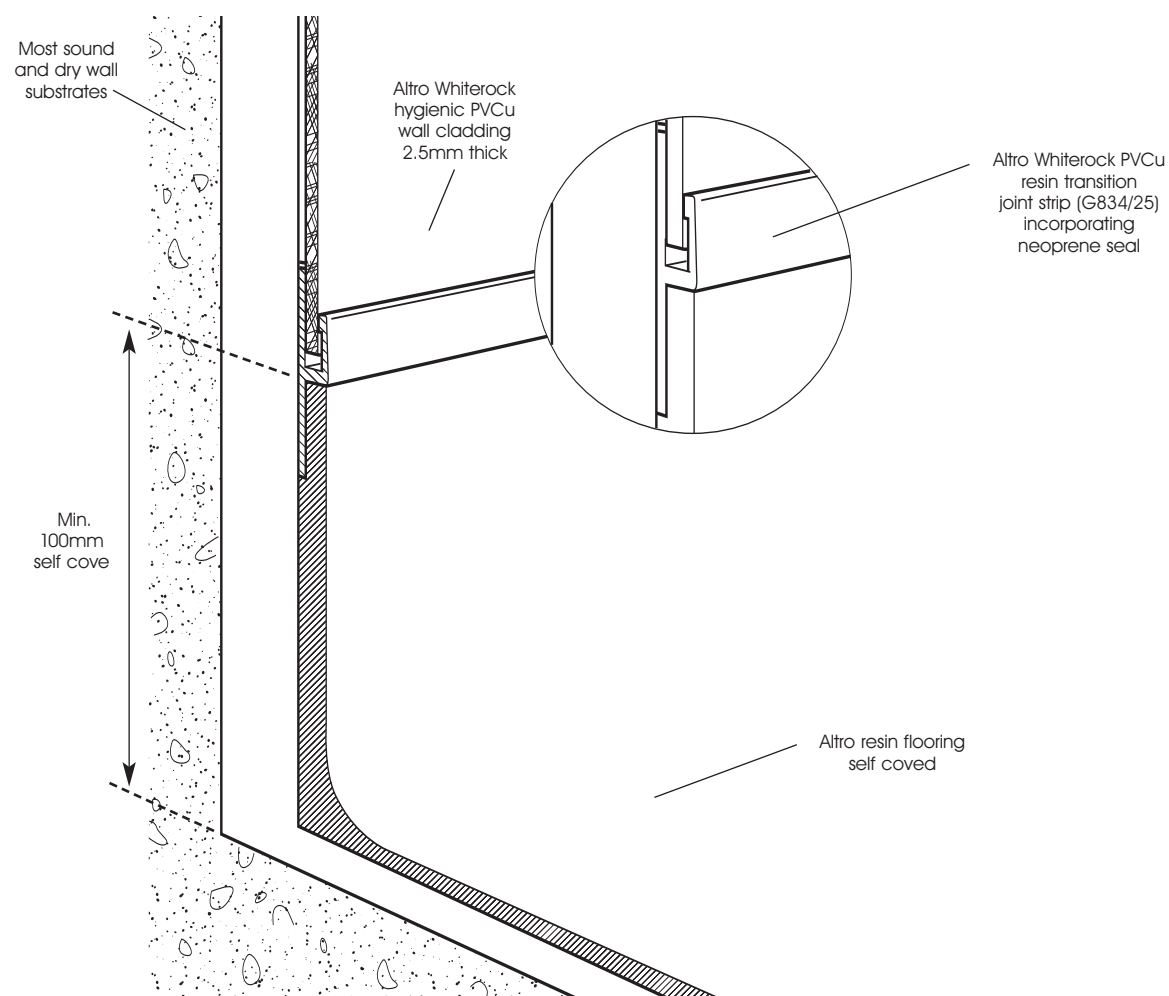
MAY 2006

Altro Whiterock™ hygienic PVCu wall cladding to Altro resin flooring detail

typical specification (Ref: WF6)

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed over most sound, dry substrates to minimum 100mm height from floor, finished into Altro Whiterock PVCu resin transition joint strip (G834/25) incorporating neoprene seal with minimum 5mm

expansion gap between cladding and centre of web. If necessary, mechanically fasten lower edge of resin transition strip back to substrate. Install Altro resin flooring (to thickness recommended for type/application) and self covered up to lower front edge of joint transition strip.



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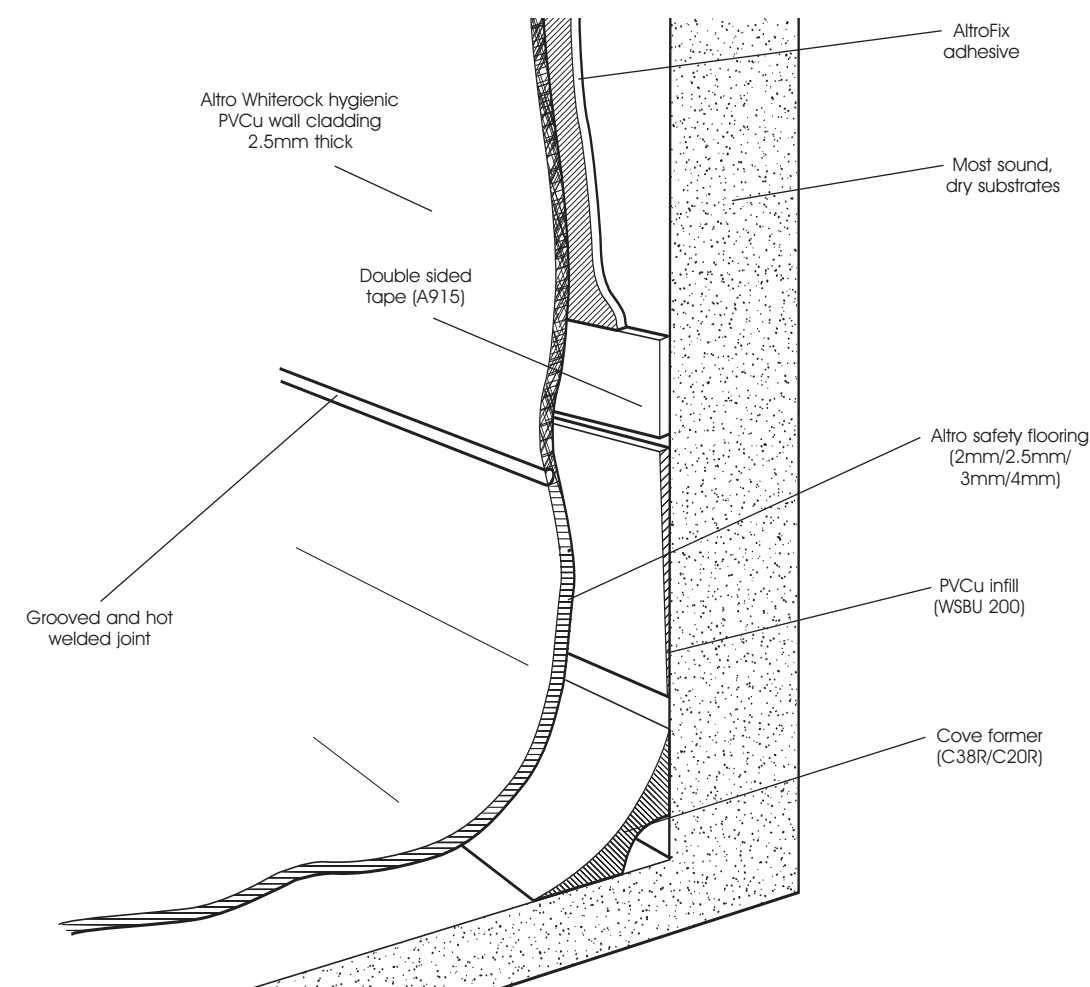
MAY 2006

Altro Whiterock™ hygienic PVCu wall cladding to Altro safety flooring detail (welded)

typical specification (Ref: WF7)

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed over most sound, dry and level substrates to minimum 100mm height from floor, fixed with AltroFix™ W139 (A814) or W173 (A820) adhesive and double sided tape (A915), overlapping PVC infill section (WSBU 200). Infill to be suitably positioned behind wall cladding to

accommodate the various flooring thicknesses. Altro safety flooring (2mm/2.5mm/3mm/4mm) fitted over cove former (C38R/C20R) and finished to PVCu cladding with pre-grooved, hot welded joint as per Altro installation recommendations.



for further information or technical advice

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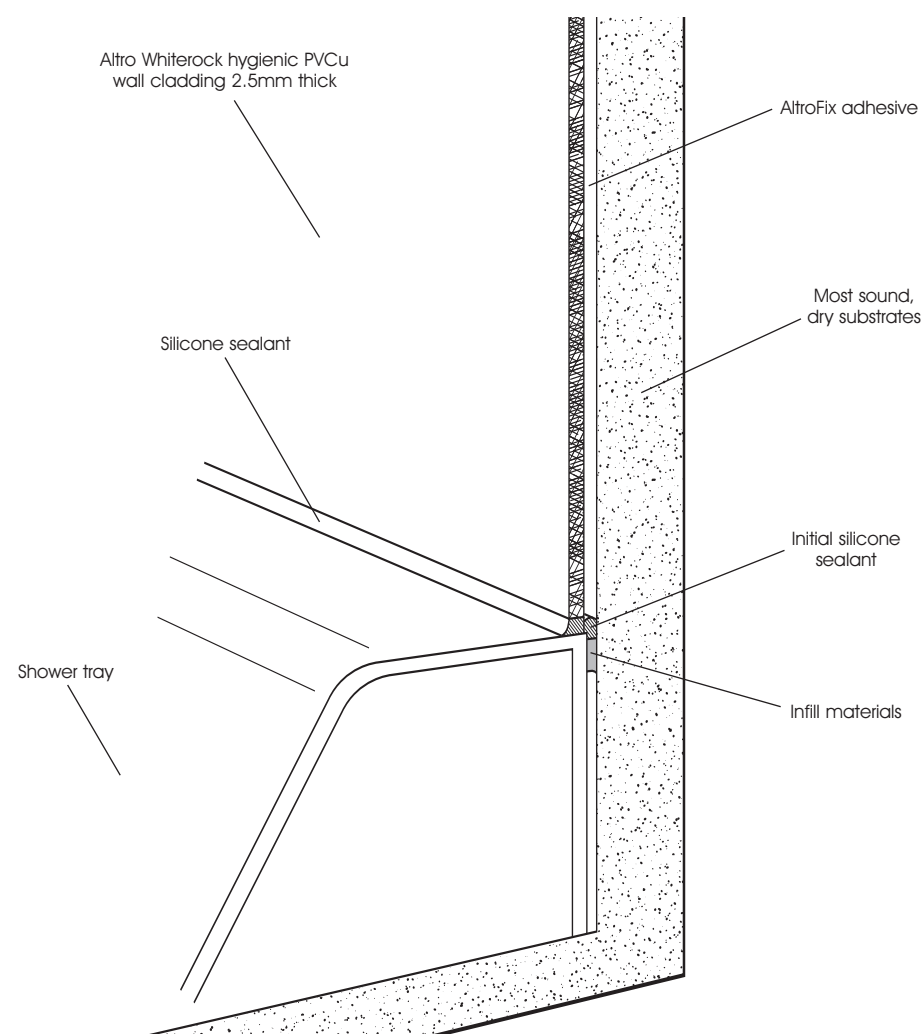
MAY 2006

Altro Whiterock™ hygienic PVCu wall cladding to shower tray detail

typical specification (Ref: WS1)

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed over most sound, dry substrates, fixed with appropriate AltroFix™ adhesive to the top edge of shower tray, with shower tray previously sealed to

substrate and PVCu cladding sealed to shower tray forming a double seal with silicone sealant (A802 or A806). Gaps between tray and substrate to be infilled to support sealant.



for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail walls@altro.com or explore www.altro.com



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CI/StB reference
(43) T (U47)

May 2006

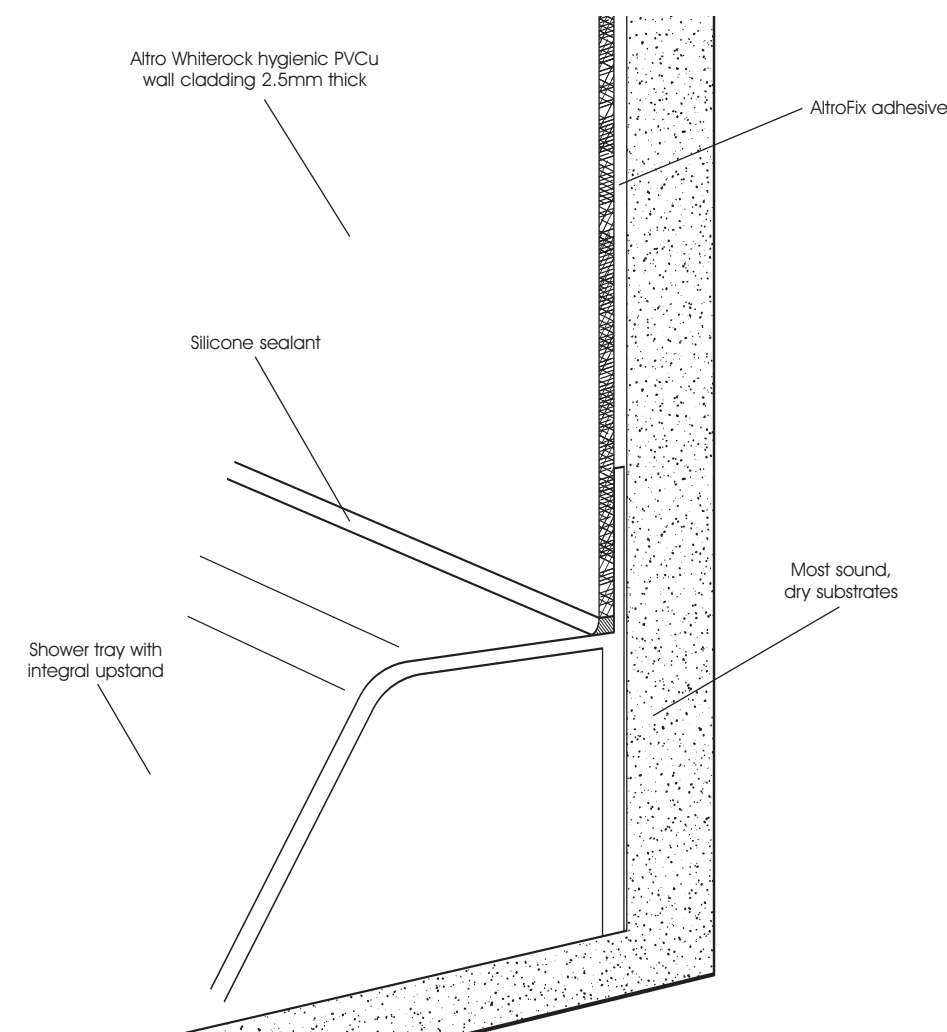
MAY 2006

Altro Whiterock™ hygienic PVCu wall cladding to shower tray with integral upstand detail

typical specification (Ref: WS2)

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed over most sound, dry substrates, fixed with AltroFix™ adhesive, finished to shower tray with integral

upstand, top edge of shower tray sealed to PVCu cladding with silicone sealant (A802 white; A806 coloured or A803 clear).



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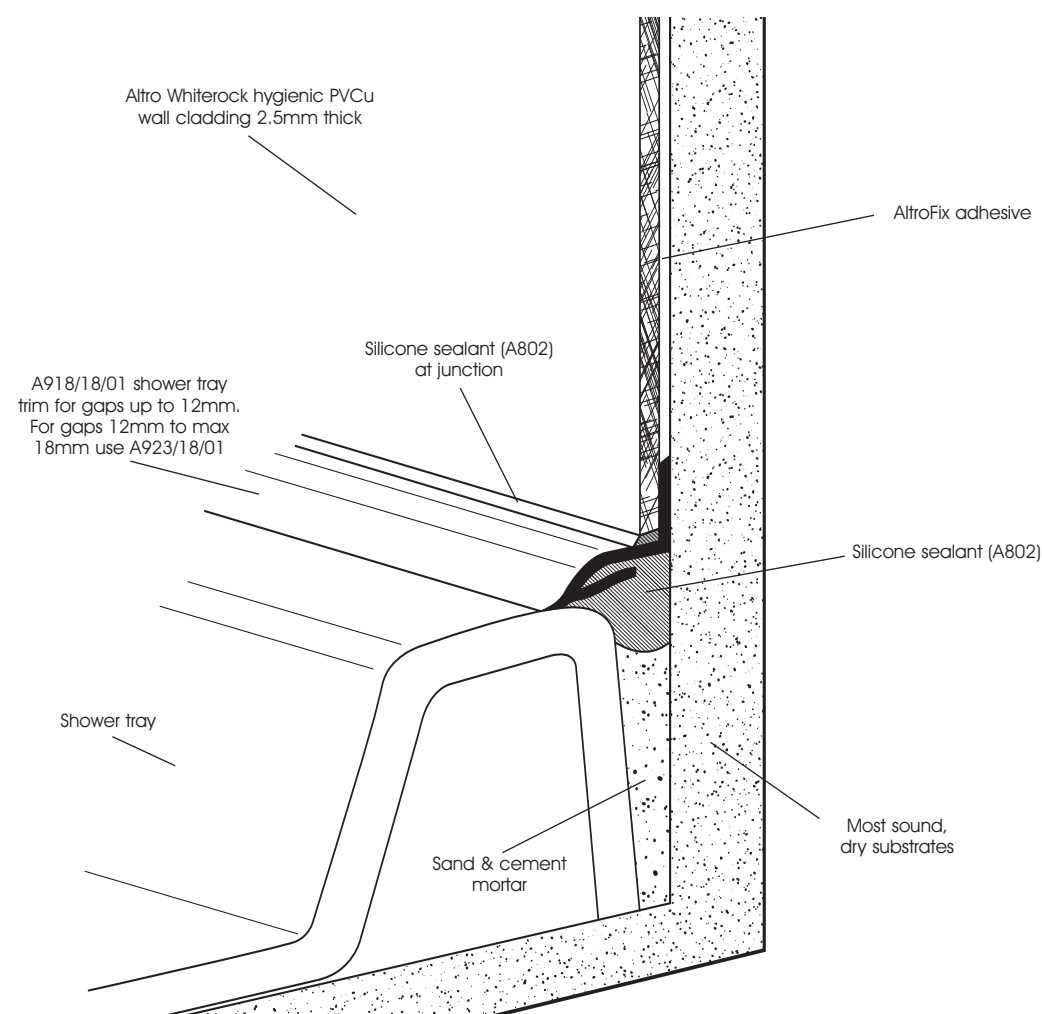
MAY 2006

Altro Whiterock™ hygienic PVCu wall cladding to shower tray with PVCu shower tray trim detail

typical specification (Ref: WS3)

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed over most sound, dry substrates, fixed with AltroFix™ adhesive, finished over PVCu shower tray trim section and sealed with silicone sealant (A802/A806). PVCu shower tray trim section to be fully

bedded on silicone sealant (A802) to span gaps between the substrate and tray. PVCu trim section available with internal corners and end caps (Ref: A918C/A923C - not shown).



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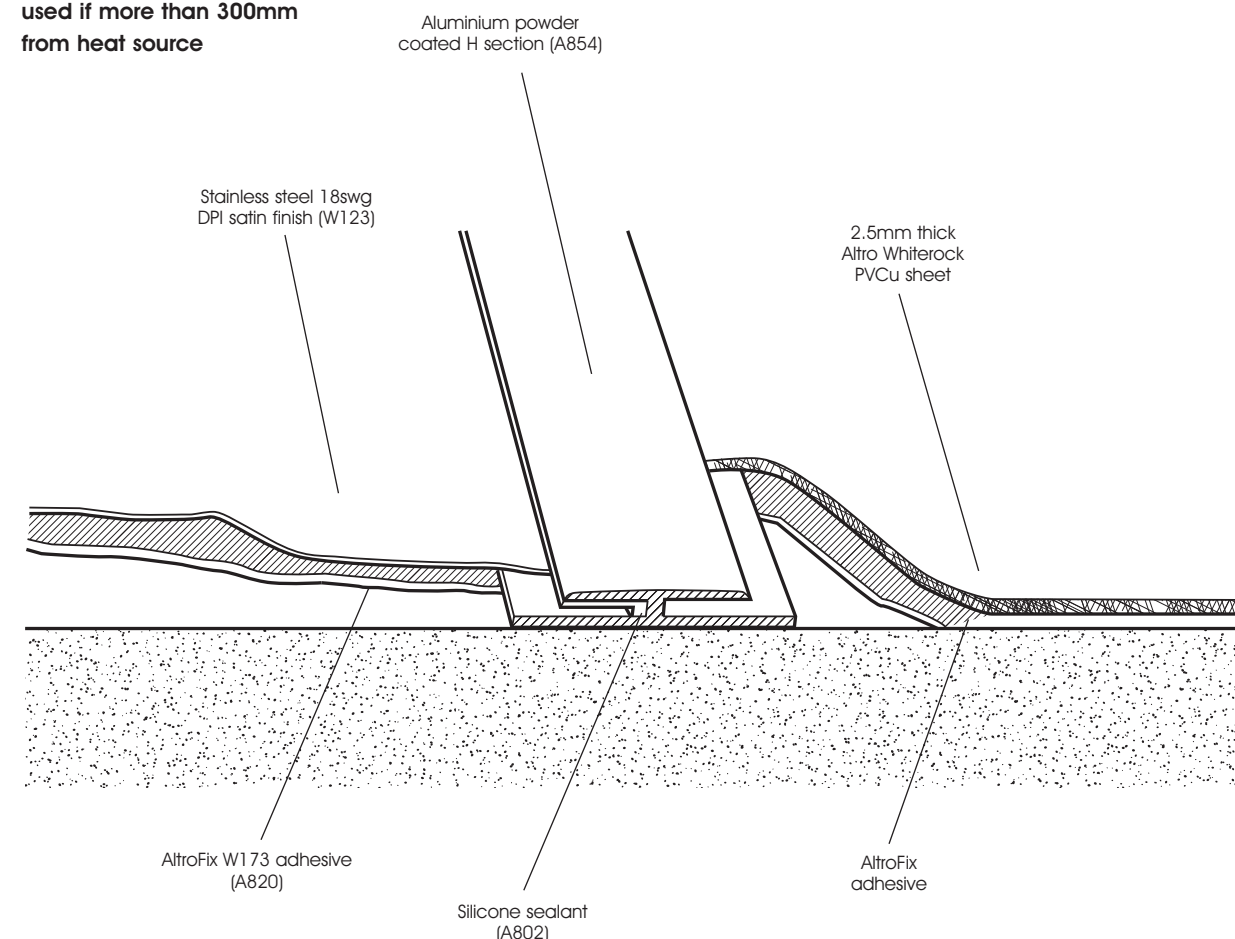
Altro Whiterock™ hygienic PVCu wall cladding junction to stainless steel cladding detail

typical specification (Ref: WSS2)

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed over most sound, dry substrates, fixed with AltroFix™ adhesive, stainless steel cladding (W123),

fixed with AltroFix W173 adhesive, (A820). With aluminium powder coated H section (A854) joint trim between panels sections.

N.B. PVCu joint trims can be used if more than 300mm from heat source



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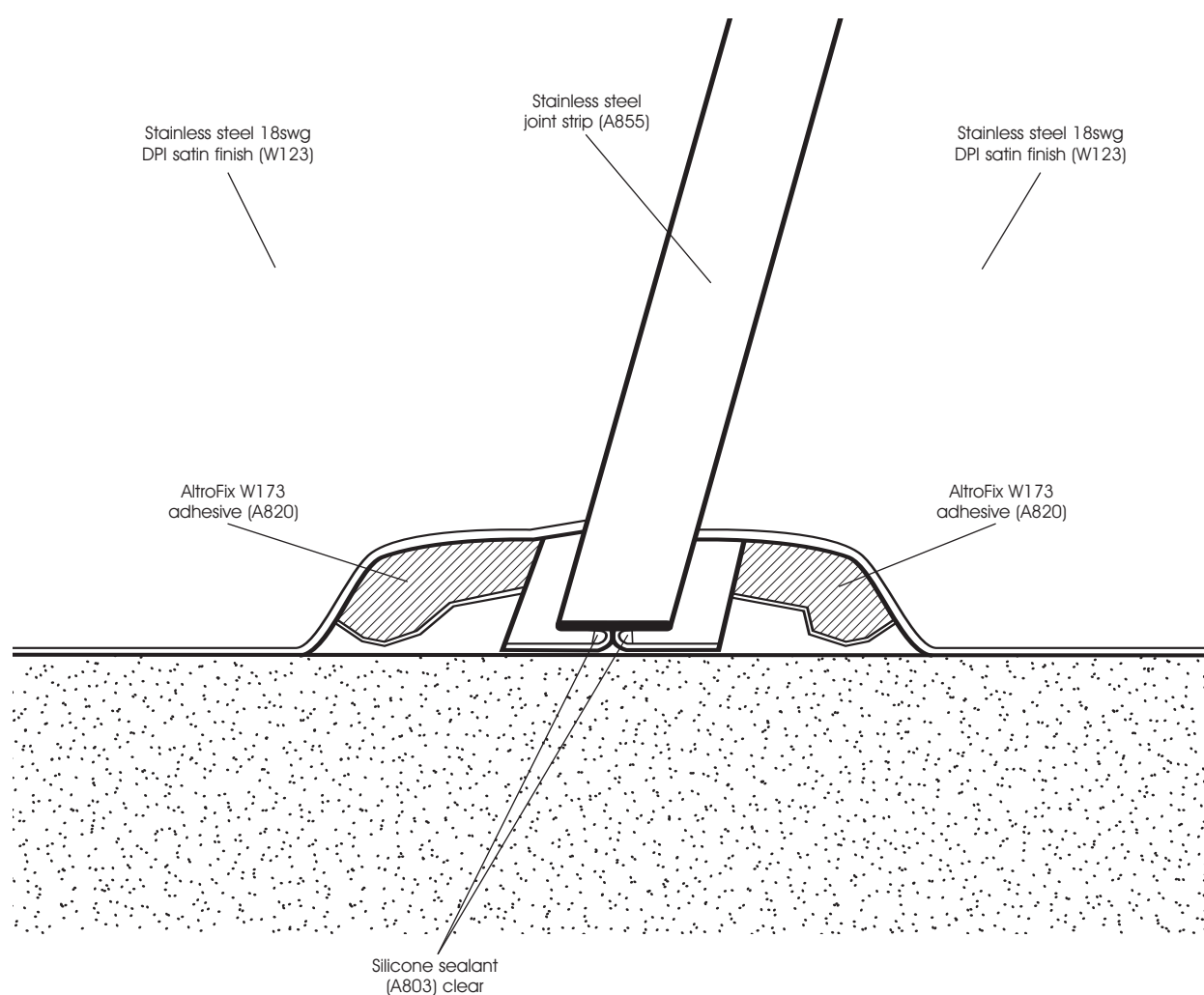
Altro Whiterock™ stainless steel cladding to stainless steel cladding detail

typical specification (Ref: WSS3)

MAY 2006

Altro Whiterock stainless steel cladding panels (W123), installed over most sound, dry substrates, fixed with AltroFix™ W173 adhesive (A820), for hot areas where

surface temperatures exceed 60°C. Panels joined with stainless steel joint strip (A855). Seal stainless steel trim with clear silicone sealant (A803).



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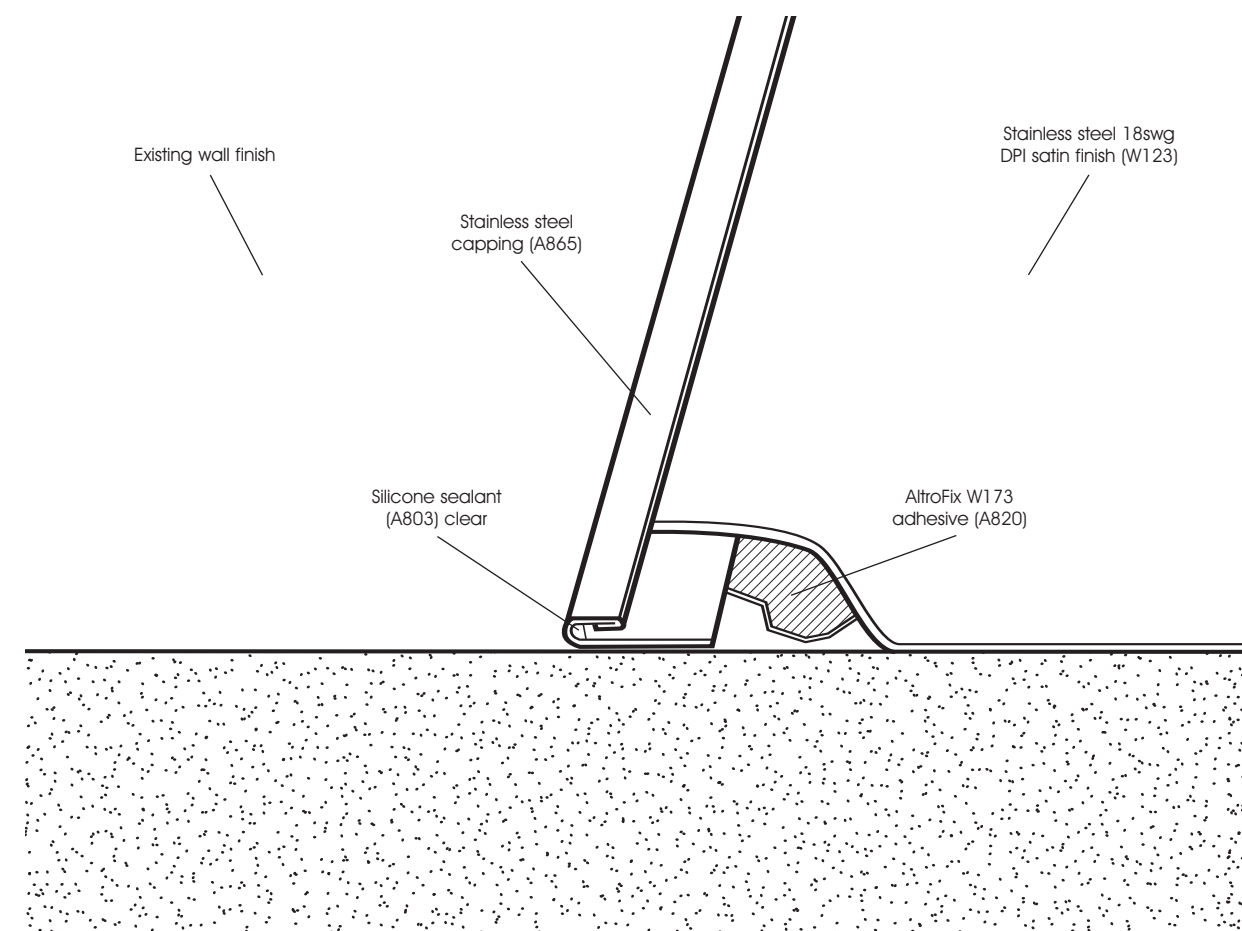
Altro Whiterock™ stainless steel cladding with stainless steel capping detail

typical specification (Ref: WSS4)

MAY 2006

Altro Whiterock stainless steel cladding panels (W123), installed over most sound, dry substrates, fixed with AltroFix™ W173 adhesive (A820), for hot areas where

surface temperatures exceed 60°C. Open edge of panels closed with stainless steel capping (A865). Seal stainless steel trim with clear silicone sealant (A803).



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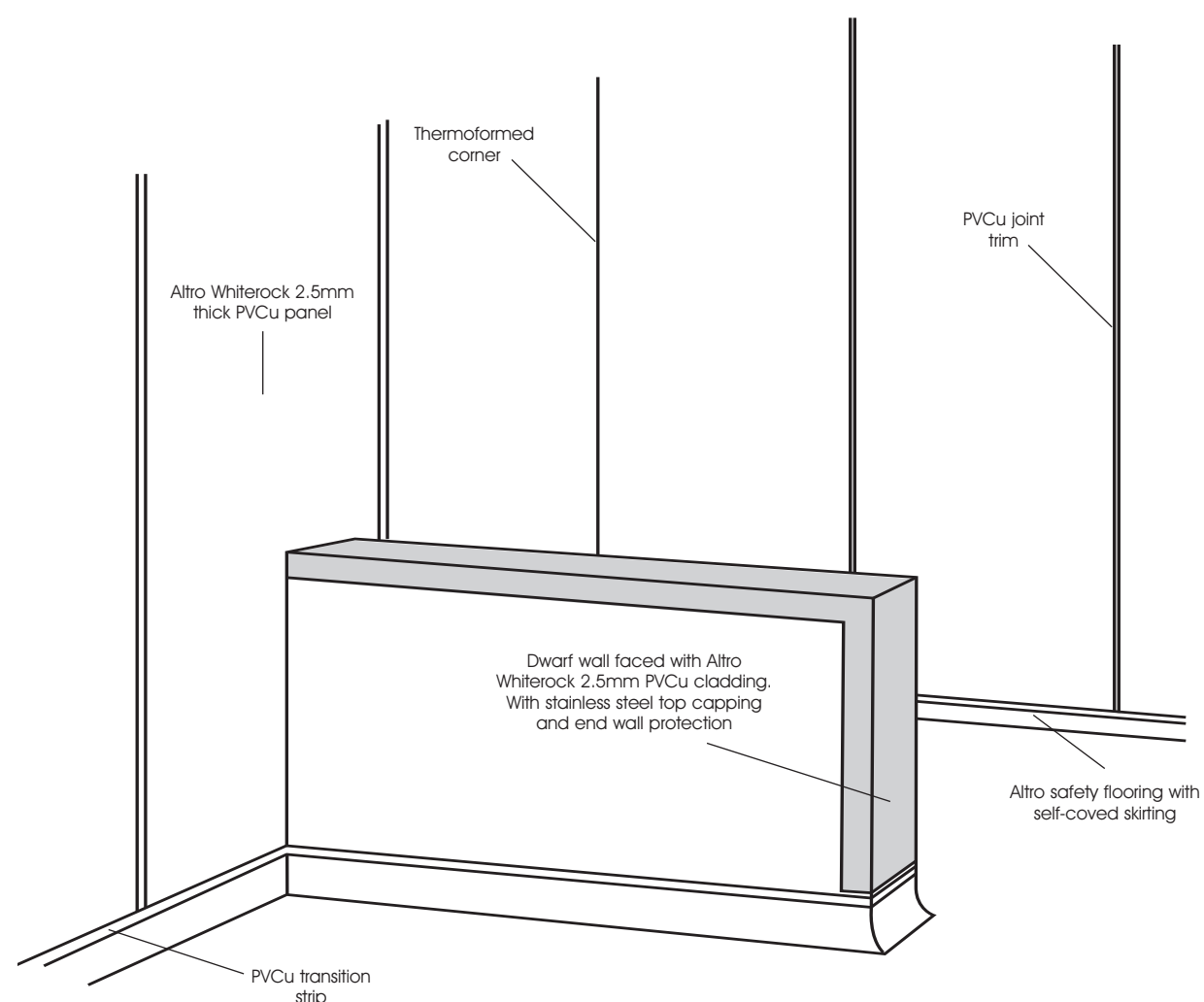
Altro Whiterock™ hygienic PVCu wall cladding junction to stainless steel cladding (dwarf wall) detail

typical specification (Ref: WSS5)

MAY 2006

Altro Whiterock hygienic PVCu wall cladding 2.5mm thick installed over most sound, dry substrates, fixed with AltroFix™ adhesive. Stainless steel cladding (W123), fabricated to form top capping and end protection

to a dwarf wall structure. Stainless steel section fixed with double sided tapes (A815) and clear silicone sealant (A803). Seal edges to PVCu cladding with silicone sealant (A803).



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Altro Whiterock™ hygienic PVCu P250 ceilings to Gyproc type MF suspended grid detail

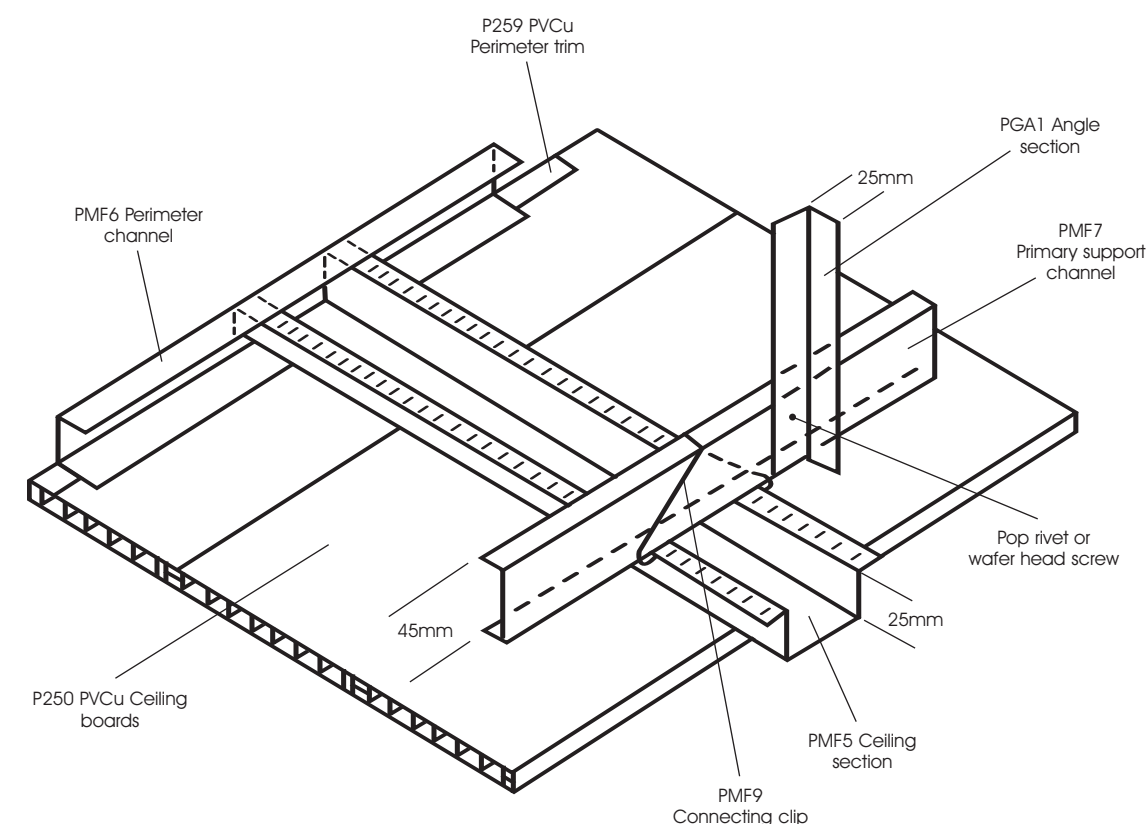
typical specification (Ref: CF1)

MAY 2006

Overview of Altro P250 suspended ceiling system

Fix PMF6 perimeter channel to perimeter of room. Suspend PMF7 primary support channel from soffit with angle section (PGA1). Fix PMF5 ceiling section to the underside of PMF7 support channel with PMF9 connecting clips. Fix P250 PVCu ceiling boards to

PMF5 ceiling section with 13mm wafer head screws. PMF7 primary support channels fixed at maximum 1200mm centres. PMF5 ceiling section fixed at maximum 600mm centres. PGA1 angle section fixed to PMF7 primary support channel by pop rivets or two 13mm wafer head screws.



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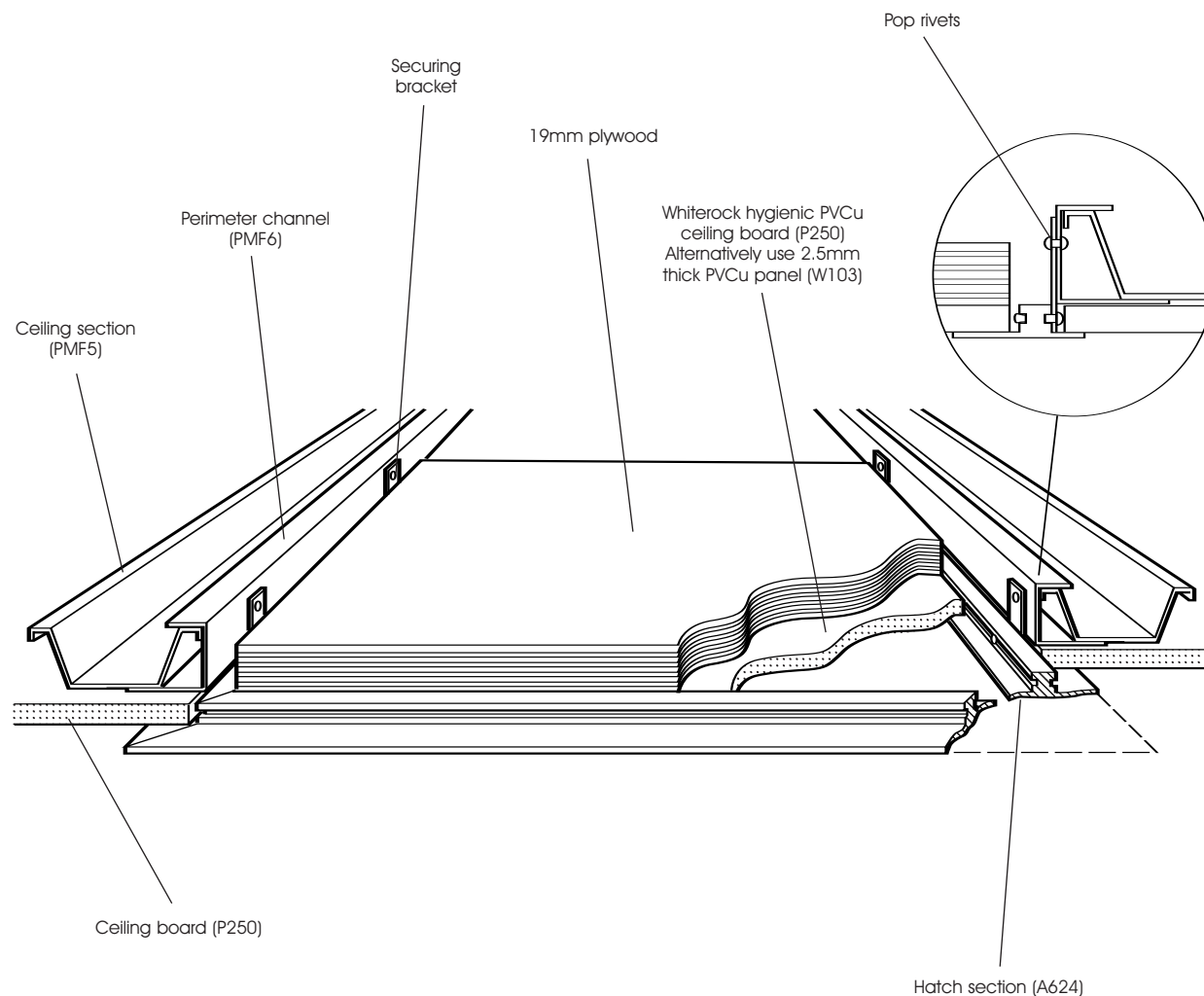
Altro Whiterock™ hygienic PVCu P250 ceilings access hatch detail

typical specification (Ref: CF2)

MAY 2006

Altro Whiterock hygienic PVCu ceiling with access hatch 600mm by 600mm nom. (or size required) utilising ceiling section (PMF5) and perimeter channel (PMF6).

Hatch section (A624) secured via brackets and pop rivets, hatchway backed by plywood board (supplied by others).



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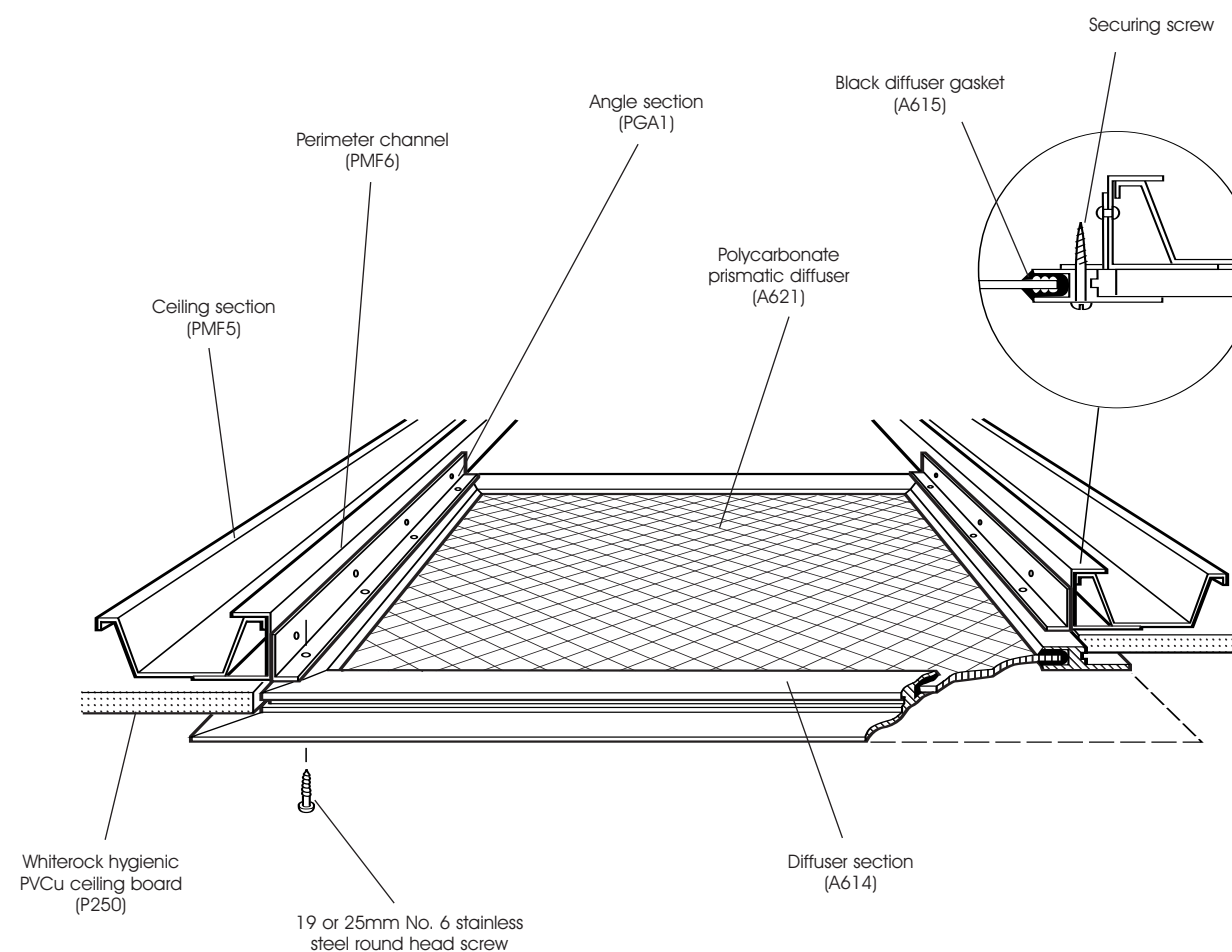
Altro Whiterock™ hygienic PVCu P250 ceilings diffuser panel detail

typical specification (Ref: CF3)

MAY 2006

Altro Whiterock hygienic PVCu ceiling with diffuser panel 600mm by 600mm nom. (1200mm by 600mm or other sizes as required) with ceiling section (PMF5), perimeter channel (PMF6) fitted with angle section (PGA1) secured

by pop rivets, diffuser section (A614) holding polycarbonate prismatic diffuser (A621) in black diffuser gasket (A615) and secured by screws to angle section.



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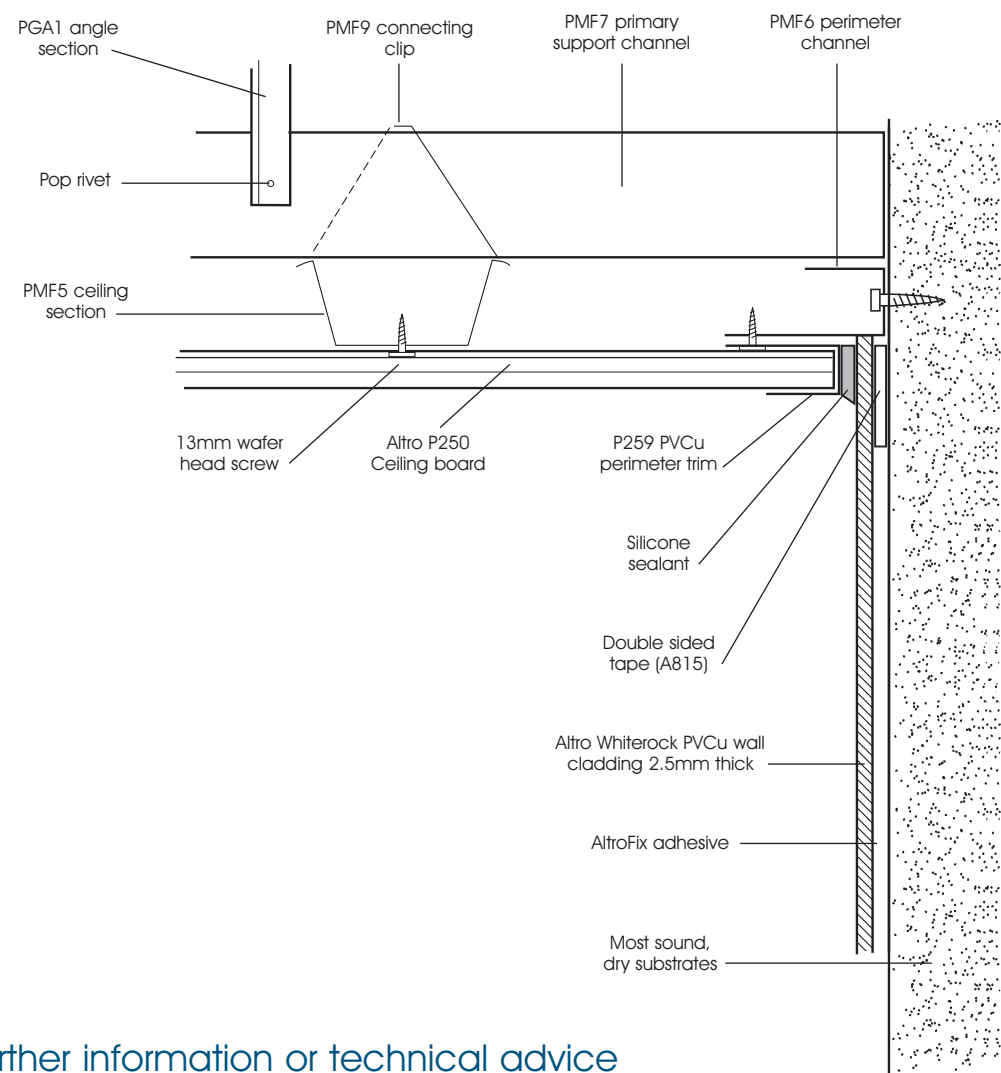
Altro Whiterock™ hygienic PVCu wall cladding to junction with P250 PVCu suspended ceiling detail

typical specification (Ref: CF5)

MAY 2006

Fix PMF6 perimeter channel to perimeter of room. Suspend PMF7 primary support channel from soffit with angle section (PGA1). Fix PMF5 ceiling section to underside of PMF7 channel with PMF9 connecting clip. Fix P259 PVCu perimeter trim to PMF6 channel with 13mm wafer head screws. Fix P250 PVCu ceiling board

to PMF5 ceiling section with 13mm wafer head screws. PMF7 primary support channels fixed at max. 1200mm centres. PMF5 ceiling section fixed at max. 600mm centres. Altro Whiterock PVCu wall cladding fixed behind P259 PVCu trim and joint sealed with silicone sealant (A802/A806).



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Altro Whiterock™ hygienic PVCu wall cladding to junction with P250 PVCu direct fix ceiling detail

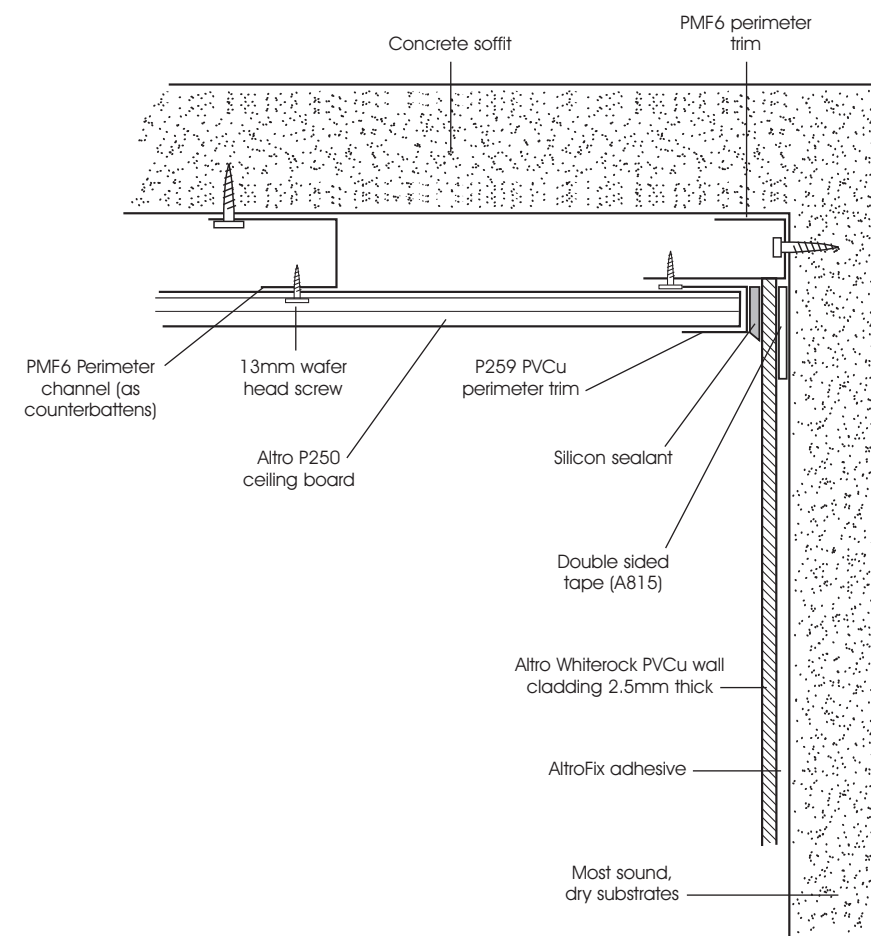
(incorporating PMF6 ceiling section as counterbattens)

typical specification (Ref: CF6)

MAY 2006

Fix PMF6 perimeter channel to perimeter of room. Mechanically fix PMF6 Perimeter channels to underside of concrete soffit at maximum 600mm centres. Fix P259 PVCu perimeter trim to underside of PMF6 channel with 13mm wafer head screws. Fix Altro P250 PVCu ceiling

boards to underside of PMF6 channel battens with 13mm wafer head screws, slotting in to P259 PVCu perimeter trim. Altro Whiterock PVCu wall cladding fixed behind P259 PVCu trim and joint sealed with silicone sealant (A802/A806).



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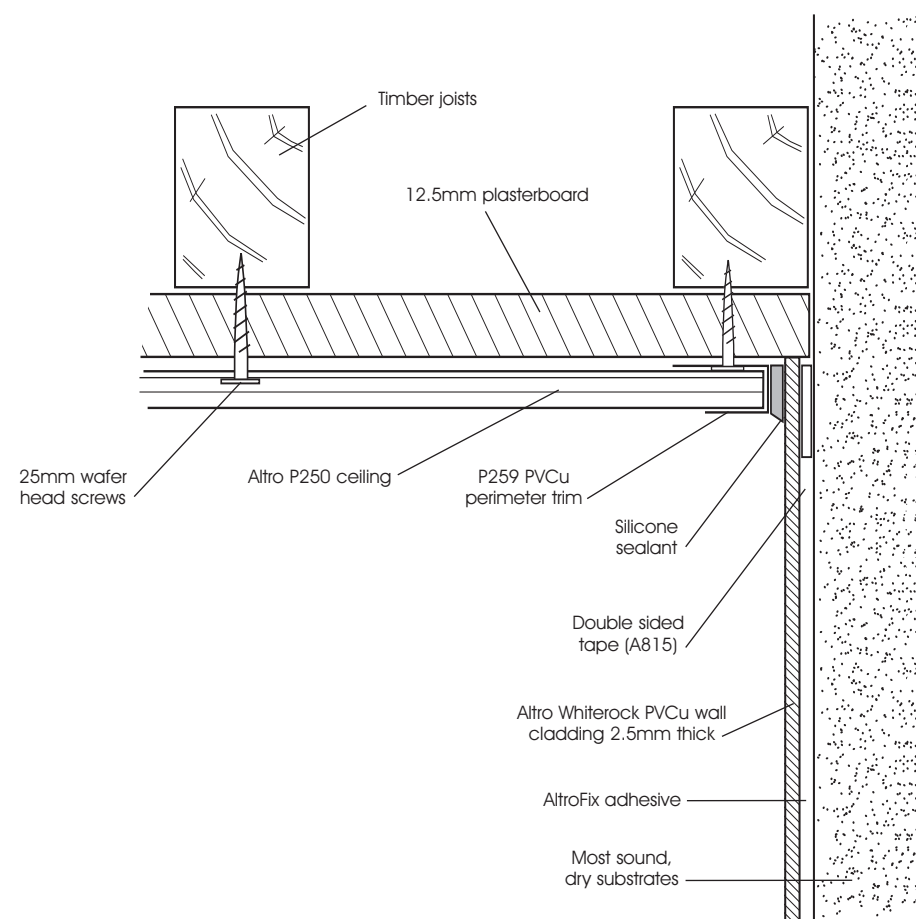
**Altro Whiterock™ hygienic PVCu
wall cladding to junction with P250
PVCu direct fix ceiling detail**

typical specification (Ref: CF7)

MAY 2006

Fix 12.5mm thick plasterboard (or similar) to timber joists (joists not to exceed 600mm centres). Fix Altro P259 PVCu perimeter trim direct to underside of plasterboard using 25mm wafer head screws. Fix Altro P250 PVCu ceiling boards direct to underside of plasterboard with 25mm

wafer head screws, ensuring alignment with timber joists above. Slot the Altro P250 PVCu ceiling boards into P259 PVCu trim. Altro Whitecock PVCu wall cladding fixed behind P259 PVCu trim and joint sealed with silicone sealant (A802/A806).



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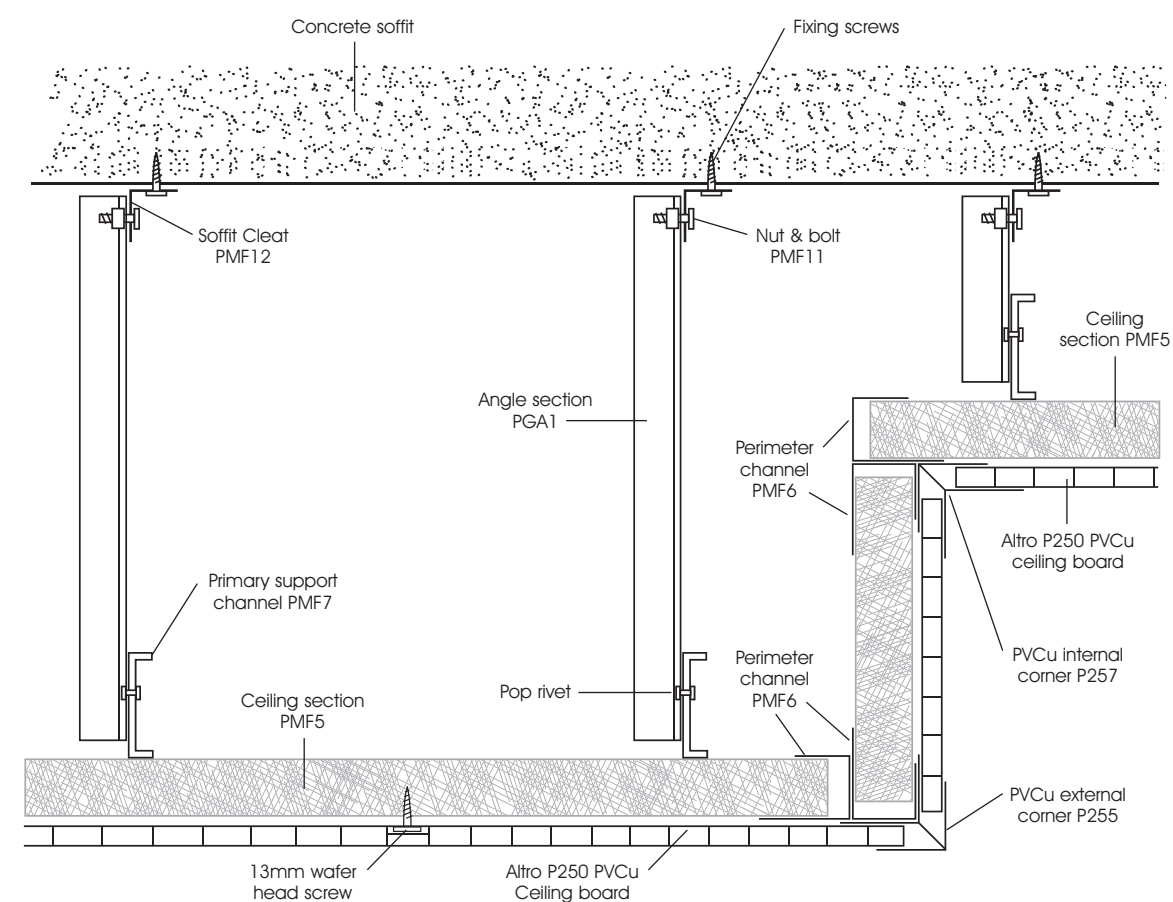
Altro Whiterock™ hygienic P250 PVCu ceilings suspended ceiling bulkhead detail

typical specification (Ref: CF8)

MAY 2006

Mechanically fix PMF12 soffit cleat to concrete structure. Fix PGA1 angle section to soffit cleat with nut & bolt PMF11. Fix angle section to primary support channel PMF7 with pop rivets. Fix primary support channel to PMF5 ceiling section with connecting clip PMF9 (not shown). For bulkhead detail, mechanically fix PMF6 perimeter channel sections together to form downstand. Fix PMF5 ceiling sections vertically into PMF6 perimeter

channel. Mechanically fasten PVCu internal/external corners (P257/P255) to perimeter channel junction with 13mm wafer head screws. Cut Altro P250 PVCu ceiling boards to length and slot into PVCu corner sections, fix boards to PMF5 ceiling sections with 13mm wafer head screws. Apply silicone sealant (A802) to inner edges of PVCu corners.



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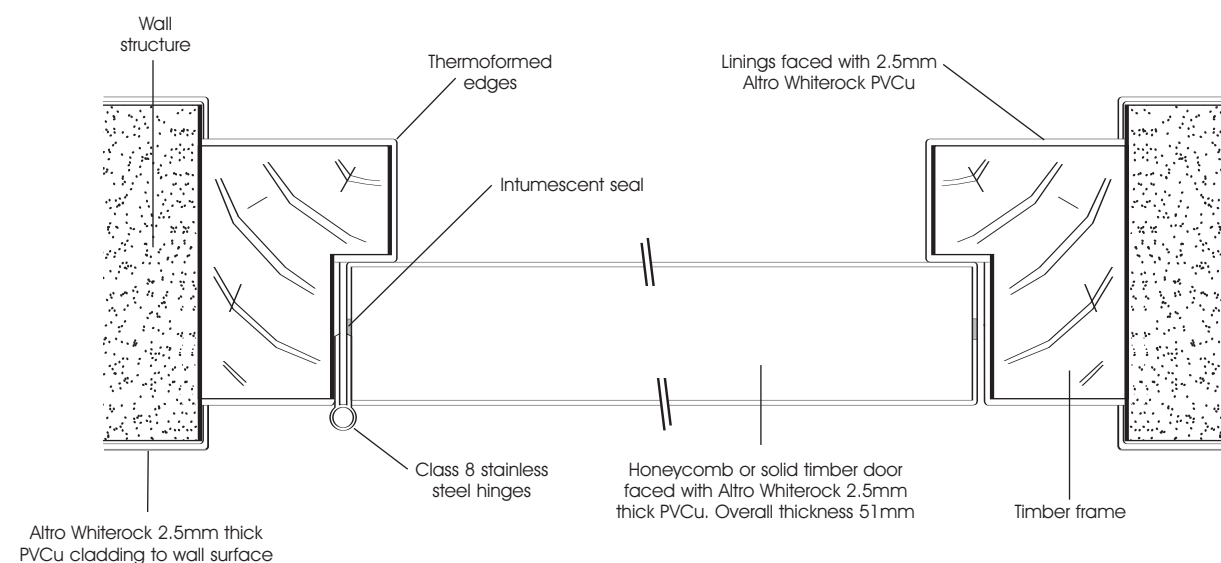
MAY 2006

Altro Whiterock™ hygienic PVCu wall cladding to Altro Whiterock™ hygienic PVCu doorsets detail

typical specification (Ref: WD1)

Altro Whiterock hygienic doorsets provide a complete door unit finished with 2.5mm thick EU grade Altro Whiterock PVCu. Doors are faced both sides including top and bottom edges. Lead edges are thermoformed and are finished with intumescent seals as standard. With matching PVCu frame linings and plastic stops made to measure for existing openings. Altro door units

are fitted with 3 No. heavy duty Class 8 stainless steel hinges and PVCu encapsulated handles. A range of accessories are available. Certain Altro Whiterock doorsets have been tested to BS 476 Part 22: 1987 Clause 7 and have been assessed to meet 30 min: integrity and insulation.



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Altro Whiterock™ hygienic doors installation detail



Installation instructions

1. Check opening size to ensure that door set will fit and mark backset of frame from edge wall.
2. Check you are working on the finished floor level. If in doubt, ask contractor for a datum.
3. Check floor unevenness in the arc of the swing of the door.
4. Position doorset in the correct direction of opening and, if necessary, pack under jambs to raise to datum level or to clear any unevenness in the floor. Check that clearances on either side of frame are equal. Open door to 90° and pack under edge of door until frame is upright in opening.
5. Check that frame is plumb upright in both directions and drill through holes in one hinge jamb into the wall.
6. Insert shims above the screens to pack gap between frame and structure and check for plumb and square as you lightly tighten up the screws. If necessary, insert small wedges to square up jambs if wall is out of square. Check that the hinge jamb is straight and free from curvature which can be caused by under/over shimming.
7. With door closed, set the head and other jamb until the margin between the door and frame are equal and parallel to the door, using shims and small wedges as necessary.
8. Check that the frame is positioned parallel to the plane of the wall and that the jambs are square to one another, free from twist.
9. Repeat the fixing procedure on the second jamb and head. Double check for squareness, plumb and evenness of margins as fixings are finally tightened up. Insert fixing hole caps.
10. Apply sealant to the joint between frame and wall. If the joint is large, it is advisable to insert packing material in the gap.
11. Check operation of door and, if locks or bolts are tight or fail to engage in strikes, keeps or holes, adjust alignment of frame or adjust apertures as necessary.

If door closers are fitted, adjust speed of closing in accordance with manufacturers instructions.

Additional information

With fire doors, only use shims made from non-combustible material. Only use fire retardant sealant between frame and structure. If clearances between frame and structure at jambs or head exceed 10mm, use a non-combustible packing in the gap before applying sealant.

Altro Whiterock Hygienic Doorsets

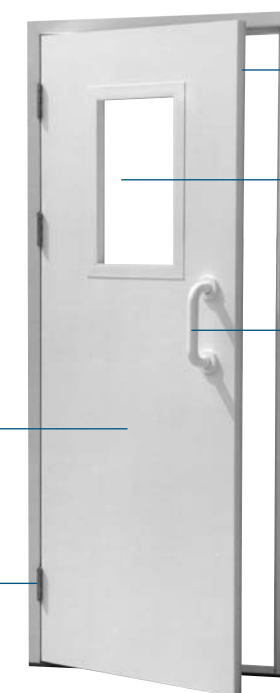
Left hand hung door unit

Thermoformed lead edges with intumescent seals



Doors faced in genuine 2.5mm thick EU Grade Altro Whiterock PVCu

Stainless steel hinges



Easy to clean, attractive formed leading edges

Vision panels available to order
Size and glazing type available to order

Quality PVCu encapsulated handles fitted as standard

Superb finish shows in every detail

Door handling is determined by facing the door as it opens towards you. On a left hand hung door unit the hinge knuckles are on the left. On a right hand hung door unit the hinge knuckles are on the right.

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Altro Whiterock™ hygienic doors

specification details

MAY 2006

A range of top quality timber door and frame sets encapsulated in Altro Whiterock PVCu cladding. Designed for use on their own, or as part of the Altro Walls complete system, with Altro Whiterock walls and ceilings. All doorsets have the Altro 10 year product warranty.

Standard specification

Core:	44mm thickness honeycomb or solid timber construction. (Fire doors are solid timber construction).		
Facing:	2.5mm thick EU Grade Altro Whiterock PVCu cladding; including top and bottom edges.		
Door:	Standard door has formed leading edges finished to centre joint incorporating intumescent seals.		
Frame:	95mm x 45mm joinery grade softwood timber faced with 2.5mm PVCu cladding.		
Door stops:	18mm thick marine plywood or solid timber faced with 2.5mm PVCu cladding.		
Ironmongery:	Heavy duty Class 8 satin washed stainless steel hinges, 3 per door. 5 lever mortise lock or latch. PVC encapsulated lever handles. Frame fixing cover caps. Double door sets have PVCu encapsulated pull handles and push plates.		
Sizes:	Single doors for openings - 845mm x 2040mm - 920mm x 2040mm Double doors for openings - 1600mm x 2040mm Other sizes to order (delivery 4-6 weeks).		
Manufacturing:	For supply only. Doors are provided hung with locks fitted. Shrunk wrapped and labelled handles are provided and boxed separately. Note: Clients own ironmongery can be incorporated into the door manufacturing process. Ask for details.		
Optional extras:	Optional extras include Polycarbonate or Georgian wire glazing, welded seams, fire resistant sets, push plates, rubbing rails, kicker plates and door closures. Special ironmongery may be supplied to order.		
Fire doors:	Please allow 4-6 weeks delivery. Certain Altro Whiterock doorsets have been tested to BS476 Part 22: 1987 Clause 7 and have been assessed to meet 30 minute integrity and insulation. Available in single and double doorsets. Combined fire and smoke seals available to order.		

Standard specification *continued*

Vision panels:	Standard glazing, 5mm thick polycarbonate or polished Georgian wire glass in fire doors. - 450mm x 200mm - 450mm x 450mm - 600mm x 600mm Double glazed option available to special order.
Colours & patterns:	White, Pastels and Decorative ranges.
Miscellaneous:	Pull handle and overhead closure Closure Welded seams Sliding doors Double action doors

Choice of standard handle colours

- Grey
- White
- Black
- Red
- Yellow
- Blue

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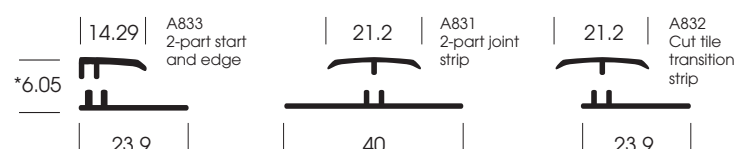
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May 2006

Altro Whiterock™ accessories

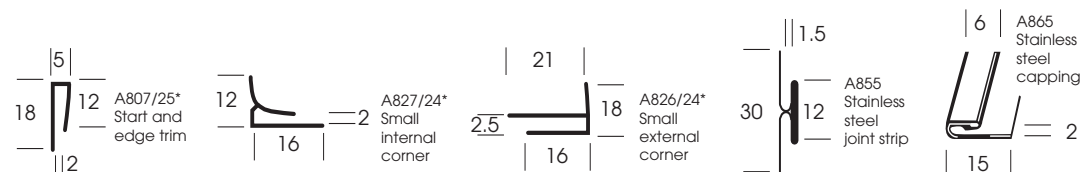
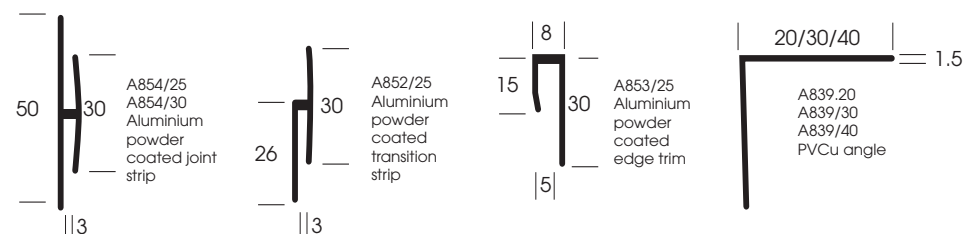
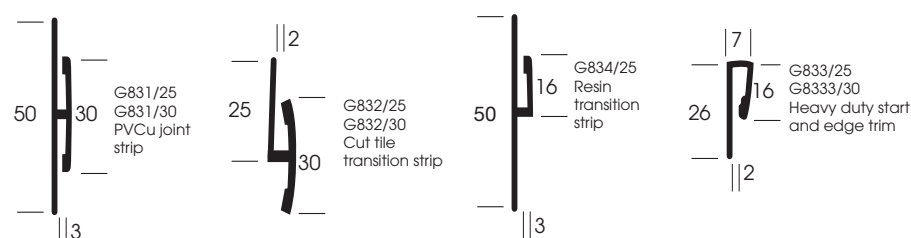
A1 data sheet
walls

MAY 2006

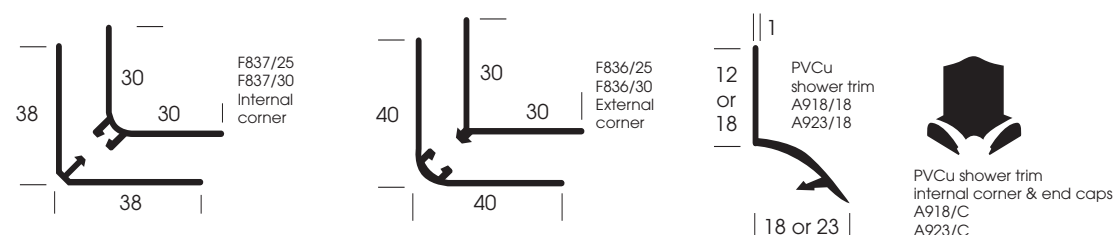


*A833, A831, A832 are 6.05 in height when locked

Note: Items shown are
not to scale.
All measurements in mm.



*A807, A827, A826 are co-ordinating colour only)



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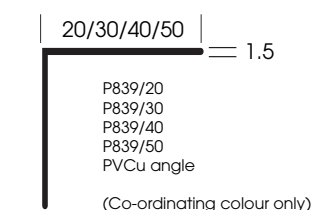
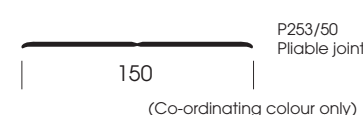
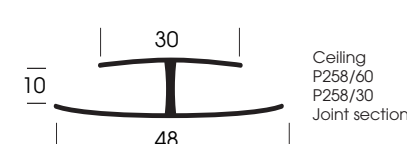
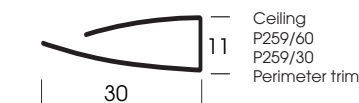
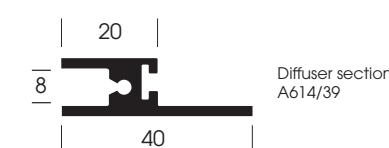
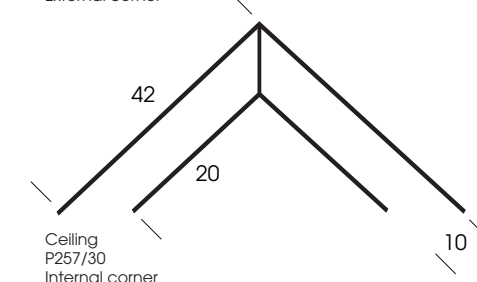
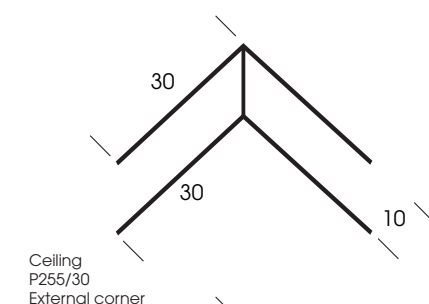
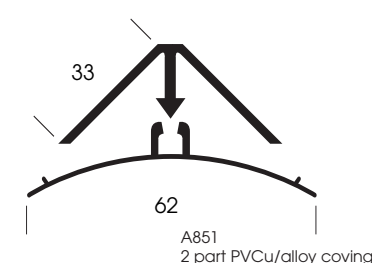
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May 2006

Altro Whiterock™ accessories

A2 data sheet
ceilings

MAY 2006



Note: Items shown are not to scale.
All measurements in mm.

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Altro Walls adhesive information

Data sheet
AltroFix W139

MAY 2006



For use with all types of Altro Whiterock PVCu cladding systems. Can be used in hygienic environments and areas subject to wet usage. It has excellent adhesion properties to all sound substrates used for internal wall construction. Suitable for new and refurbishment building projects.

Properties

AltroFix W139 is a two-part urethane adhesive supplied in the correct quantities for mixing. Both parts are held within the container and separated by a protective film. The setting and curing time is dependent upon site working temperatures:-

At recommended ambient temperature of 14°C

Initial tack time 45-60 minutes

Initial setting time: 4-6 hours

Full cure time: 24-36 hours

Pack sizes

AltroFix W139 (Ref: A814) is supplied in two pack sizes:-

6.5Kg unit (Ref: A814/25) - for 2.5m panels

8.0Kg unit (Ref: A814/30) - for 3.0m panels

Substrate moisture content

All substrates to be dried to 16% WME (Wood Moisture Equivalent) on Protimeter 'Surveymaster' equipment.

Installation temperatures

Recommended ambient temperature of 14°C.

Altro Walls recommends the PVCu wall cladding is installed at the approximate ambient service temperature at which the area will be when commissioned. This is to ensure that expansion parameters are not exceeded. The adhesive must not be used if the temperature is below +5°C.

Substrates

Substrates should be sound and free from all surface contaminants. Any contamination should be cleaned from the surface using appropriate methods and allowed to dry. Dusty or friable surfaces to be stabilised using a stabilising solution of Unibond PVA diluted 1:10 with water or Altro Primer Seal (Ref: AGCPNF/01). Both stabilisers to be applied with brush or roller and allowed to dry.

Suitable substrates include good quality fairfaced brick or blockwork. Well aligned joints bagged up flush. Straight to within 3mm over a 2m straight edge. Brick and blocks to be flush with ones adjacent. Sand and cement rendering; plasterboard; plywood; MDF; plaster; ceramic tiles which are securely bonded to substrate; certain sound painted surfaces (subject to an adhesive test).

Mixing of parts A and B

Part A is a viscous cream coloured paste supplied in plastic tubs. Part B is a catalyst supplied in a foil bags. Pour the contents of Part B into the plastic container holding Part A and mix thoroughly until a uniform consistency is obtained throughout. A drill with a paddle attachment should be used to ensure complete mixing. Scrape the sides thoroughly during this process.

Care should be taken to avoid spillage when mixing, as staining of floor coverings may occur.

Application

Back of PVCu sheet to be clean and free of surface contaminants such as grease and dust. Apply adhesive to the back of the sheet as soon as possible before the adhesive thickens. Apply adhesive approximately 25mm from edges using a 5mm x 5mm square notched trowel, producing a coverage of approximately 2.1kg/m².

On application, immediately apply the sheet to the wall. Apply pressure to the whole surface area of the sheet to ensure transfer and a good overall bond. Altro double sided tapes (Ref: A815) should be used to assist with initial contact to substrate.

On completion, the installation should not be subject to a temperature variation of + or - 5°C until the adhesive cures.

Coverage

AltroFix W139 adhesive is supplied in 6.5kg and 8.0kg pack sizes. A 6.5kg tub of adhesive is sufficient to cover a 2.50m x 1.22m PVCu panel, (approximately 2.1kg/m²). A 8.0kg tub of adhesive is sufficient to cover a 3.0m x 1.22m PVCu panel, (approximately 2.1kg/m²). Coverages are based on applications with a 5mm x 5mm notched trowel.

Storage and conditioning (on site)

It is essential that AltroFix W139 is stored at ambient temperatures of approximately 14°C as storage temperature determines viscosity of the compound. If stored in cold conditions, the adhesive will not spread easily and coverage will be reduced. If stored at extreme heat conditions, deterioration of Part B can occur. AltroFix W139 has a shelf life of 2 years from date of manufacture.

Health & safety

Part A - Base

- Generally no significant hazard
- May cause mild irritation on contact with skin
- May cause sensitisation by skin contact
- After contact with skin, wash immediately with running water for 10 minutes or longer
- In case of eye contact, bathe the eye with running water for 15 minutes and seek medical advice
- Wear suitable protective clothing and gloves
- Ensure adequate ventilation in the work area

Part B - Hardener

- Irritation to eyes
- Irritation to respiratory system
- Irritation to skin. May cause sensitisation
- Harmful by inhalation. May cause sensitisation
- After contact with skin, wash immediately with running water for 10 minutes or longer. Wash the affected area with warm soapy water
- In case of eye contact, bathe the eye with running water for 15 minutes and seek medical advice
- Wear suitable protective clothing and gloves

Care must be taken when mixing Part B with Part A component to avoid contact with eyes and skin. Wear suitable protective clothing, gloves, eye protection and keep away from ignition sources.

Ensure the area is adequately ventilated.

In the case of contact with eyes or skin, rinse immediately with plenty of water and seek medical advice. Whilst the adhesive does not normally cause skin irritation, epoxy/polyurethanes are potential sensitisers, which means they can lead to dermatitis reactions in sensitive persons. Always wear correct protective clothing such as gloves, overalls and safety glasses to ward against splashes whilst mixing.

for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail: walls@altro.com or explore www.altro.com

Altro Walls adhesive information

Data sheet
AltroFix W157

MAY 2006



For use with all types of Altro Whiterock PVCu cladding systems. Can be used in hygienic environments and areas subject to spillages. It has excellent adhesion properties to all smooth, sound, porous substrates used for internal wall construction. Suitable for new and refurbishment building projects.

Properties

AltroFix W157 is a water based synthetic polymer emulsion. Supplied in convenient sized plastic containers. The setting and curing time is dependent upon site working temperatures and substrate porosity:-

At recommended ambient temperature of 14°C

Initial tack time 1 hour

Initial setting time: 12-24 hours

Full cure time: 24-36 hours

Pack sizes

AltroFix W157 (Ref: A818) is supplied in three pack sizes:-

3.0kg unit (Ref: A818/03) - for 2.5m panels

4.0kg unit (Ref: A818/04) - for 3.0m panels

12kg unit (Ref: A818/12) - for 2.5m/3.0m panels

Substrate moisture content

All substrates to be dried to 16% WME (Wood Moisture Equivalent) on Protimeter 'Surveymaster' equipment.

Installation temperatures

Recommended ambient temperature of 14°C.

Altro Walls recommends the PVCu wall cladding is installed at the approximate ambient service temperature at which the area will be when commissioned. This is to ensure that expansion parameters are not exceeded. The adhesive must not be used if the temperature is below +5°C.

Substrates

Substrates should be sound and free from all surface contaminants. Any contamination should be cleaned from the surface using appropriate methods and allowed to dry. Dusty or friable surfaces to be stabilised using a stabilising solution of Unibond PVA diluted 1:10 with water or Altro Primer Seal (Ref: AGCPNF/01). Both stabilisers to be applied with brush or roller and allowed to dry.

Suitable substrates must be porous, smooth, sound and straight to within 3mm over a 2m straight edge. Sand and cement rendering; plaster; plywood; plasterboard (note: moisture resistant plasterboard not suitable) and certain sound emulsion painted surfaces (subject to an adhesive test).

Mixing adhesive

AltroFix W157 is a viscous off-white coloured paste supplied in plastic tubs. Mix thoroughly until a uniform consistency is obtained throughout. A drill with paddle attachment should be used to ensure complete mixing. Scrape the sides thoroughly during this process.

Care should be taken to avoid spillage when mixing.

Application

Back of PVCu sheet to be clean and free of surface contaminants such as grease and dust. Apply adhesive to the back of the sheet as soon as possible before the adhesive thickens. Apply adhesive approximately 25mm from edges using a 3mm x 3mm square notched trowel, producing a coverage of approximately 1.0kg/m².

On application, immediately apply the sheet to the wall. Apply pressure to the whole surface area of the sheet to ensure transfer and a good overall bond.

On completion, the installation should not be subject to a temperature variation of + or - 5°C until the adhesive cures.

Coverage

AltroFix W157 adhesive is supplied in 3kg, 4kg and 12kg pack sizes. A 3kg tub of adhesive is sufficient to cover a 2.50m x 1.22m PVCu panel, (approximately 1.0kg/m²). A 4kg tub of adhesive is sufficient to cover a 3.0m x 1.22m PVCu panel, (approximately 1.0kg/m²). A 12kg tub of adhesive suitable for either panel size being used. Coverages are based on applications with a 3mm x 3mm notched trowel.

Storage and conditioning (on site)

It is essential that AltroFix W157 is stored at ambient temperatures of approximately 14°C as storage temperature determines viscosity of the compound. If stored in cold conditions, the adhesive will not spread easily and coverage will be reduced. If stored at temperatures below +5°C a risk of frost damage can occur. AltroFix W157 has a shelf life of 1 year from date of manufacture.

Health & safety

- Classified as non-hazardous
- May cause mild irritation on contact with skin
- May cause sensitisation by skin contact
- After contact with skin, wash immediately with warm soapy water
- In case of eye contact, bathe the eye with running water until clean. If necessary seek medical advice
- Wear suitable protective clothing and gloves
- Ensure adequate ventilation in the work area

Care must be taken when mixing the W157 component to avoid contact with eyes and skin. Wear suitable protective clothing, gloves, eye protection and keep away from ignition sources.

Ensure the area is adequately ventilated.

In the case of contact with eyes or skin, rinse immediately with plenty of water and seek medical advice. Whilst the adhesive does not normally cause skin irritation, acrylic based compounds are potential sensitisers, which means they can lead to dermatitis reactions in sensitive persons. Always wear correct protective clothing such as gloves, overalls and safety glasses to ward against splashes whilst mixing.

for further information or technical advice

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e-mail: walls@altro.com or explore www.altro.com

Altro Walls adhesive information

Data sheet
AltroFix W173

MAY 2006



For use with all types of Altro Whiterock PVCu cladding systems. Can be used in hygienic environments and areas subject to wet usage. It has excellent adhesion properties to all sound substrates used for internal wall construction. Suitable for new and refurbishment building projects.

Properties

AltroFix W173 is a two-part cementitious adhesive, Part A (powder) is supplied in a clear plastic bag, Part B (liquid emulsion) is supplied in a plastic tub. The setting and curing time is dependent upon site working temperatures and substrate porosity:-

At recommended ambient temperature of 14°C
Initial tack time: 1 hour
Initial setting time: 6-12 hours
Full cure time: 24-48 hours

Pack sizes

AltroFix W173 (Ref: A820) is supplied in two pack sizes:-
6.0kg unit (Ref: A820/25) - for 2.5m panels
7.0kg unit (Ref: A820/30) - for 3.0m panels

Substrate moisture content

All substrates to be dried to 16% WME (Wood Moisture Equivalent) on Protimeter 'Surveymaster' equipment.

Installation temperatures

Recommended ambient temperature of 14°C. Altro Walls recommends the PVCu wall cladding is installed at the approximate ambient service temperature at which the area will be when commissioned. This is to ensure that expansion parameters are not exceeded. The adhesive must not be used if the temperature is below +5°C.

Substrates

Substrates should be sound and free from all surface contaminants. Any contamination should be cleaned from the surface using appropriate methods and allowed to dry. Dusty or friable surfaces to be stabilised using a stabilising solution of Unibond PVA diluted 1:10 with water or Altro Primer Seal (Ref: AGCPNF/01). Both stabilisers to be applied with brush or roller and allowed to dry.

Suitable substrates include good quality fairfaced brick or blockwork. Well aligned joints bagged up flush. Straight to within 3mm over a 2m straight edge. Brick and blocks to be flush with ones adjacent. Sand and cement rendering; plasterboard; plywood; MDF; plaster; ceramic tiles which are securely bonded to substrate; certain sound painted surfaces (subject to an adhesive test).

Mixing of parts A and B

Part A is a cementitious powder supplied in a clear, sturdy plastic bag. Part B is a low viscosity yellow coloured liquid emulsion supplied in plastic tubs. Pour the contents of Part A into the plastic container holding Part B and mix thoroughly until a uniform consistency is obtained throughout. A drill with paddle attachment should be used to ensure complete mixing. Scrape the sides thoroughly during this process. Care should be taken to avoid spillage when mixing.

Application

Back of PVCu sheet to be clean and free of surface contaminants such as grease and dust. Apply adhesive to the back of the sheet as soon as possible before the adhesive thickens. Apply adhesive approximately 25mm from edges using a 5mm x 5mm square notched trowel, producing a coverage of approximately 2.0kg/m².

On application, immediately apply the sheet to the wall. Apply pressure to the whole surface area of the sheet to ensure transfer and a good overall bond. Altro double sided tapes (Ref: A815) should be used to assist with initial contact to substrate.

On completion, the installation should not be subject to a temperature variation of + or - 5°C until the adhesive cures.

Coverage

AltroFix W173 adhesive is supplied in 6.0kg and 7.0kg pack sizes. A 6.0kg tub of adhesive is sufficient to cover a 2.50m x 1.22m PVCu panel, (approximately 2.0kg/m²). A 7.0kg tub of adhesive is sufficient to cover a 3.0m x 1.22m PVCu panel, (approximately 2.0kg/m²). Coverages are based on applications with a 5mm x 5mm notched trowel.

Storage and conditioning (on site)

It is essential that AltroFix W173 is stored at ambient temperatures of approximately 14°C as storage temperature determines viscosity of the compound. If stored in cold conditions, the adhesive will not spread easily and coverage will be reduced. If stored at temperatures below +5°C a risk of frost damage can occur. AltroFix W173 has a shelf life of 1 year from date of manufacture.

Health & safety

Part A - cementitious powder

- Generally no significant hazard
- May cause mild irritation on contact with skin
- May cause sensitisation by skin contact
- After contact with skin, wash immediately with warm soapy water
- In case of eye contact, bathe the eye with running water until clean. If necessary seek medical advice
- Wear suitable protective clothing and gloves
- Ensure adequate ventilation in the work area

Part B - liquid emulsion catalyst

- Generally no significant hazard
- A water based component
- After contact with skin, wash with soapy water
- In case of eye contact, bathe the eye with running water until clean. If necessary seek medical advice
- Wear suitable protective clothing and gloves

Care must be taken when mixing Part A with Part B component to avoid contact with eyes and skin. Wear suitable protective clothing, gloves, eye protection and keep away from ignition sources.

Ensure the area is adequately ventilated.

In the case of contact with eyes or skin, rinse immediately with plenty of water and seek medical advice. Whilst the adhesive does not normally cause skin irritation, cementitious compounds are potential sensitisers, which means they can lead to dermatitis reactions in sensitive persons. Always wear correct protective clothing such as gloves, overalls and safety glasses to ward against splashes whilst mixing.

for further information or technical advice

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e-mail: walls@altro.com or explore www.altro.com



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CI/SfB reference
(43) T (U47)

May 2006

Hygienic PVCu wall cladding systems, ceiling systems and doorsets

recommended cleaning methods

Altro Whiterock PVCu wall cladding, Altro Whiterock hygienic PVCu ceiling systems,
Altro Whiterock hygienic doorsets

MAY 2006

Manual - weekly

1. Wash with water or diluted soap/detergent solutions. Follow the manufacturer's dilution instructions. Use a soft cloth only. Do not use abrasive cleaners, pads or wire wool.

Sterilisation and pressure cleaning

1. Sterilisation solutions (supplied by others) may be used following the manufacturer's instructions. N.B. Observe maximum temperature of 60°C on all Altro Whiterock products.
2. Pressure cleaning with hot water lance may be carried out with the pressure nozzle a minimum of 600mm (approx 2 feet) from the wall surface.

Heavy or stubborn stains

1. Clean heavily soiled areas with AltroClean™ 44 cleaner or equivalent alkaline cleaner
2. Remove stubborn stains with Altro Whiterock Cleaner A859*. *N.B. Not to be used on Altro Chameleon high gloss PVCu panels.

Dusty environments

1. To reduce static charge after cleaning, apply Antistatic Solution A809 to all surfaces when dry.

Failure to maintain Altro Whiterock in accordance with recommended procedure can affect the performance of the product. Further information is available from Altro Walls. Please ensure you have the Health and

Safety data sheet for any cleaner you intend to use. In the event of any queries, our Technical Services Department will be pleased to advise you.

Tips for successful maintenance of Altro Whiterock PVCu walling, ceiling and doorsets

1. **Develop a regular cleaning programme suited to the usage and traffic of the area** – heavy traffic or highly visible areas, or locations with rigorous hygiene requirements, need to be cleaned more often than areas which are seldom used, or where appearance is less important. A weekly cleaning programme is the minimum recommended.
 2. **Use recommended cleaning chemicals** – use only recommended cleaning liquids, their equivalents or sterilising solutions in the correct concentration. Do not mix cleaning chemicals together, and always follow the manufacturer's instructions.
 3. **Remove scuff marks and heavy soiling regularly** – marks and soiling should be removed more often than the maintenance programme, e.g. daily. Never use abrasive pads or cleaners.
 4. **Hot water lances can cause damage** – use with care and never closer than 600mm or above maximum temperature recommendations.
- High quality cleaning chemicals ensure efficient maintenance and represent only a small proportion of maintenance costs. The following suppliers offer excellent products:

Cleaning agents and polishes

Altro Walls Tel: 01502 561364; Fax: 01502 531461;
E-mail: sales@altro.com

British Nova Works Ltd Tel: 0208 574 6531;
Fax: 0208 571 7572

CSA Tel: 01954 251573; Fax: 01954 251 931;
E-mail: csaeagle@fsbdial.co.uk

Diversey Lever Ltd Tel: 01604 405311;
Fax: 01604 406809

Hako Clean Midlands Tel: 01788 823535;
Fax: 01788 823969; E-mail: sales@hako.co.uk

Premier Products Tel: 01242 243421;
Fax: 01242 528445;
E-mail: premier@premierproducts.co.uk

Prochem Europe Ltd Tel: 0208 974 1515;
Fax: 0208 974 1511; E-mail: sales@prochem.co.uk

SC Johnson Tel: 01276 63456; Fax: 01276 852308

3M PLC Tel: 0161 236 8500; Fax: 0161 237 6136

HYGIENIC PVCu WALL CLADDING
SYSTEMS, CEILING SYSTEMS
AND DOORSETS
RECOMMENDED CLEANING METHODS

for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail walls@altro.com or explore www.altro.com



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CI/SfB reference		
(43)	T	(U47)
May	2006	

Altro Whiterock™ hygienic wall and ceiling systems

MAY 2006



Specification K40 suspended ceilings
(using Altro P250 to PMF suspended grid system)

Structural soffit

Examples; suitable timber joists; concrete, steel floor, Z purlins.

Installation temperature

Recommended ambient temperature of 14°C/57°F for all installation areas.

Boards

Supplier: Altro Walls,
48 Pinbush Road,
South Lowestoft Industrial Estate,
Lowestoft,
Suffolk, NR33 7NL

Tel: 01502 561364

Fax: 01502 531461

PVCu Twin Wall Tongue & Groove Board

Reference:	Size:
P250/60	6000 x 250 x 9mm Colour White
P250/50	5000 x 250 x 9mm Colour White
P250/40	4000 x 250 x 9mm Colour White
P250/30	3000 x 250 x 9mm Colour White

Fire Rating (Boards only):

BS 476 Part 7 (1987) - Class 1

BS 476 Part 6 (1989) - Class 0*

(*when installed to a non-combustible substrate)

Integral non-combustible substrates

To achieve Class 0 as defined in Building Regulations, fix plasterboard (or similar) to the underside of PMF5 secondary support grid section, prior to fitting P250 PVCu ceiling boards. Boards to be mechanically fixed through plasterboard with 25mm wafer head drill point screws (Ref: A611/25).

Method of fixing

- Primary grid section (Ref: PMF7) suspended on suitable hangers (Ref: PGA1) mechanically fixed to structural soffit. Secondary support grid section (Ref: PMF5) clipped to primary section, at right angles, using connecting clips (Ref: PMF9), with perimeter channel (Ref: PMF6) secured to wall along perimeter line. PVCu perimeter trim (Ref: P259) secured to metal perimeter channel and P250 PVCu boards mechanically fixed to secondary support grid section with 13mm wafer head drill point screws.

Abutments

- To walls, wipe clean and seal with Altro Whiterock silicone sealant (Ref: A802).

Finishing

- Wipe off any marks and dirt using Altro Whiterock cleaner/thinner (Ref: A808) or Desolvit wipes (Ref: A817). When dry, apply Altro Whiterock Antistatic Agent to all surfaces (Ref: A809).
- A substantial bed of Altro Whiterock sealant (Ref: A802) to be placed within the perimeter trim (Ref:P259) and any intermediate 'H' section (Ref: P258) PVCu jointing trims as the work proceeds. The ends of the boards are pushed firmly into the sealant ensuring a complete seal.

Accessories

- Access panels: constructed from P250 ceiling boards, or Altro Whiterock PVCu panels, bonded to 19mm plywood/masterboard, seated in a white powder coated aluminium trim mechanically fixed through ceiling boards to the support structure above (Ref: A626).
- Light Diffusers: constructed from polycarbonate prismatic material secured in a white powder coated aluminium trim, mechanically fixed through ceiling boards to the support structure above (Ref: A621).
- Coving detail: (A851) 2 part PVCu/Alloy coving, for secondary fixing to ceiling/wall junction. Mechanically fixed through alloy back plate to the substrate.
- Bulkhead or boxing detail: Internal and external angles formed with PVCu trims (P255 or P257). Mechanically fixed with 13mm wafer head drill point screws.
- Pliable joint section (Ref: P253) for finished junction of sloping/angled bulkheads. Fixed with AltroFix 25nf contact adhesive direct to P250 PVCu boards. Ask for Altro detail drawings CF2, CF3, CF5 and CF8.

Service fittings

- Sprinklers, luminaires, and air diffusers supplied by others. Apertures for luminaires and air diffusers trimmed out with perimeter channel (Ref: P259), additional hangers to be installed at corners of apertures if required. PVCu boards (Ref: P250) cut out to suite apertures. Provision of fixing points for surface mounted lighting in the form of secondary grid section to be incorporated at the time of the installation of the grid.

for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail walls@altro.com or explore www.altro.com



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CI/SfB reference
(43) T (U47)

May 2006

Altro Whiterock™ hygienic wall and ceiling systems

MAY 2006



Specification M50 PVCu linings to ceiling
(using Altro P250 direct fix system)

Structural soffit

Any ceiling substrate which provides a fixing point at maximum 600mm centres, e.g. timber joists, timber battens, PVCu battens, galvanised steel battens, or plasterboard which is mechanically fixed to joists.

Installation temperature

Recommended ambient temperature of 14°C/55°F for all installation areas.

Boards

Supplier: Altro Walls,
48 Pinbush Road,
South Lowestoft Industrial Estate,
Lowestoft,
Suffolk, NR33 7NL

Tel: 01502 561364
Fax: 01502 531461

PVCu Twin Wall Tongue & Groove Board

Reference:	Size:
P250/60	6000 x 250 x 9mm Colour White
P250/50	5000 x 250 x 9mm Colour White
P250/40	4000 x 250 x 9mm Colour White
P250/30	3000 x 250 x 9mm Colour White

Fire Rating (Boards only):

BS 476 Part 7 (1987) - Class 1
BS 476 Part 6 (1989) - Class 0*
(*when installed to a non-combustible substrate)

Drawings

M&E plans, indicating layout of ventilation ducting, electrical services, lighting layouts etc.

Method of fixing

- Mechanically fix P259 PVCu trim to perimeter of ceiling with 13mm wafer head drill point screws (Ref: A611).
- Altro P250 PVCu ceiling boards mechanically fixed to suitable battens or joists with 13mm wafer head drill point screws (Ref: A611).
- Concrete soffits should be counter battened with galvanised steel battens (Ref: PMF6), or similar, at a maximum of 600mm centres. Perimeter channels (Ref: PMF6) secured to the wall along perimeter line.
- When fixing P250 boards to the underside of plasterboard, use 25mm wafer head drill point screws (Ref: A611/25). Fixings to correspond with the joists above plasterboards.

Abutments

- To walls, wipe clean and seal with Altro Whiterock silicone sealant (Ref: A802).

Finishing

- Wipe off any marks and dirt using Altro Whiterock cleaner/thinner (Ref: A808) or Desolvit wipes (Ref: A817). When dry, apply Altro Whiterock Antistatic Agent to all surfaces (Ref: A809).
- A substantial bed of Altro Whiterock sealant (Ref: A802) to be placed within the perimeter trim (Ref: P259) and any intermediate 'H' section (Ref: P258) PVCu jointing trims as the work proceeds. The ends of the boards are pushed firmly into the sealant ensuring a complete seal.

Accessories

- Where voids or cavities exist within the ceiling structure which allows for concealed lighting units or M&E services to be incorporated above the ceiling line, access panels and light diffusers can be installed with the ceiling system.
- Access panels: constructed from P250 ceiling boards, or Altro Whiterock PVCu panels, bonded to 19mm plywood/masterboard, seated in a white powder coated aluminium trim mechanically fixed through ceiling boards to the support structure above, (Ref: A626).
- Light Diffusers: constructed from polycarbonate prismatic material secured in a white powder coated aluminium trim, mechanically fixed through ceiling boards to the support structure above (Ref: A621).
- Coving detail: (A851) 2 part PVCu/Alloy coving, for secondary fixing to ceiling/wall junction. Mechanically fixed through alloy back plate to the substrate.
- Bulkhead or boxing detail: Internal and external angles formed with PVCu trims (P255 or P257). Mechanically fixed with 13mm wafer head drill point screws. Ask for Altro detail drawings CF2, CF3, CF6 and CF7.

Service fittings

- Sprinklers, luminaires, and air diffusers supplied by others. Apertures for luminaires and air diffusers trimmed out with PVCu perimeter channel (Ref: P259). Altro PVCu ceiling boards (Ref: P250) cut out to suit apertures. Provisions of fixing points for surface mounted lighting should be attached to ceiling substrate.

ALTRO WHITEROCK™ HYGIENIC
WALL AND CEILING SYSTEMS
SPECIFICATION M50 PVCu
LININGS TO CEILING

for further information or technical advice

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e-mail walls@altro.com or explore www.altro.com

Altro Whiterock™ hygienic wall and ceiling systems

MAY 2006



Specification M50 Stainless Steel linings to walls

Suitable substrates

- Good quality fairfaced brick or blockwork. Well aligned joints bagged up flush. Straight to within 3mm over a 2m straight edge and bricks/blocks flush with ones adjacent.
- Sand & cement rendering 1:3 to a steel trowel finish.
- 12.5mm thick plasterboard.
- Ceramic tiles which are securely bonded to substrate.
- Certain sound painted surfaces (an adhesive test is advisable to ascertain compatibility).
- Plastered surfaces - finished with steel trowel. (Note: Surfaces to be thoroughly sealed with diluted PVA or Altro Primer Seal (Ref: AGCPNF/01).

N.B. Altro advise that all wall surfaces other than a conventional solid brick, block or plastered surface should be constructed with a calcium silica board behind cooking/open flame areas.

Moisture content

- All substrates to be dried to 16% WME (Wood Moisture Equivalent) on Protimeter 'Surveymaster' equipment.

Installation temperature

- Recommended ambient temperature of 14°C/57°F for all installation areas.

Substrate preparation (by others)

- All loose paint and dust to be removed.
- Friable surfaces to be removed or made sound using proprietary treatment e.g. Unibond PVA sealer or similar water resistant type.
- Ceramic tiles to be thoroughly degreased, rinsed and left to dry.
- Loose tiles to be removed and area made good using Ardurapid 45 repair mortar or sand and cement with Unibond mix, if drying time permits. Alternatively, a suitable thickness W.B.P. ply, screwed and plugged, can be used.
- Depressions in substrate surface should be filled with Ardurapid 45 repair mortar or sand and cement with Unibond mix, if drying time permits.
- Existing painted surfaces to be degreased and bond test carried out to confirm compatibility with adhesive.

Panels

Supplier: Altro Walls,
48 Pinbush Road, South Lowestoft Industrial Estate,
Lowestoft, Suffolk, NR33 7NL
Tel: 01502 561364 Fax: 01502 531461

Reference:	Size:
W123/20	2000 x 1000 x 18swg
W123/25	2500 x 1250 x 18swg

Bespoke units fabricated to suit site conditions.

Material: 18swg DP1 matt brushed finish stainless steel (coded 304 food grade).

Typical areas of installation

- Behind deep fat fryers, cookers, griddles, wall mounted grills, back vented ovens etc.
- Also portable items such as kettles, toasters, microwave ovens etc.
- Behind and around some ultra violet insect killers.

N.B. If a layout showing the position of equipment can be supplied, we will provide specific advice as to the best combination of materials to use.

Fire rating

BS 476 Part 7 (1987) - Class 1
BS 476 Part 6 (1989) - Class 0

Drawings

- Plant & equipment layout indicating heat emitting units, electrical services layout, plumbing/heating services, radiators etc.

Method of fixing

- Use AltroFix W173 (Ref: A820) two-part cementitious adhesive spread with a 5mm square notched trowel (Ref: A860). Support the panel on double sided tape (Ref: A815) whilst adhesive cures (approximately 12 hours - full cure 24 hours). Back of sheets to be cleaned using Altro Whiterock cleaner/thinner (Ref: A808) or Desolvit wipes (Ref: A817).
- Apply firm even pressure with suitable roller to whole surface area of panel as work proceeds to ensure adequate adhesive transfer and good overall bond.

Joint treatment

- All joints between stainless steel panels to be covered with stainless steel 'H' joint section (Ref: A855). Joints between stainless steel panels and PVCu panels to be covered with white powder coated aluminium 'H' joint section (Ref: A854). Alternatively a 3-4mm Altro silicone sealant joint can be used, (Ref: A803 Clear), all such joints to be primed with cleaner/thinner (Ref: A808) before sealant is applied. Ask for Altro detail drawing WSS3.

Corner detail

- Internal & external corners to be factory formed prior to delivery to site. Ask for Altro detail drawing WSS5.

Abutments

- To window frame, door frames, architraves, ceiling and quarry tile, wipe clean and prime edges with cleaner/thinner (Ref: A808) and seal with Altro silicone sealant (Ref: A803 Clear).
- To Altro safety sheet vinyl flooring with coved skirting, joint to be covered with high impact PVCu transition strip (Ref: A832 two-part trim, or G832 single part trim).
- To resin type flooring with coved skirting. Stainless Steel should be installed up to a minimum height of 100mm and finished into Altro Whiterock PVCu joint strip (A834/25), maintaining a minimum expansion gap of 5mm between sheet and extrusion centre web. Cove form Altro resin to meet lower front of joint extrusion strip.

Finishing

- Protective film to be removed, wipe off any marks and dirt using Altro Whiterock cleaner/thinner (Ref: A808) or Desolvit wipes (Ref: A817).

Accessories

- If required, heavy duty stainless steel start and edge capping section (A865) or white powder coated aluminium 'H' joint sections (Ref: A854) and white powder coated aluminium start and edge trim (Ref: A853/25). Ask for Altro detail drawings WSS2 and WSS4.

Treatment to service preparations

- All holes to be cut to allow 3-4mm silicone seal around all penetrations. Clean with cleaner/thinner (Ref: A808) and seal with Altro silicone sealant (A803 Clear).

Protection

- If required, Correx, Megafilm or hardboard taped to surface.

for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail walls@altro.com or explore www.altro.com



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Altro Whiterock™ hygienic wall and ceiling systems

MAY 2006



Specification M50 PVCu linings to walls
(by AltroFix W139 adhesive system)

Suitable substrates

- Good quality fairfaced brick or blockwork. Well aligned joints bagged up flush. Straight to within 3mm over a 2m straight edge and bricks/blocks flush with ones adjacent.
- Sand & cement rendering 1:3 to steel trowel finish.
- 12.5mm thick plasterboard.
- Minimum 9mm W.B.P. resin bonded plywood.
- Minimum 9mm MDF dense wood based panels.
- Ceramic tiles which are securely bonded to substrate.
- Certain sound painted surfaces (an adhesive test is advisable to ascertain compatibility).
- Plastered surfaces - finished with steel trowel.
(Note: Surfaces to be thoroughly sealed with diluted PVA or Altro Primer Seal (Ref: AGCPNF/01).

Moisture content

- All substrates to be dried to 16% WME (Wood Moisture Equivalent) on Protimeter 'Surveymaster' equipment.

Installation temperature

- Recommended ambient temperature of 14°C/57°F for all installation areas.

Substrate preparation (by others)

- All loose paint and dust to be removed.
- Friable surfaces should be removed or made sound. Please consult Altro regarding approved sealing treatments.
- Ceramic tiles should be thoroughly degreased, rinsed and allowed to dry.
- Loose tiles should be removed and the area made good using Ardurapid 45 repair mortar or sand and cement with Unibond mix, if drying time permits. Alternatively, a suitable thickness W.B.P. ply, screwed and plugged can be used.
- Depressions in substrate surface should be filled with Ardurapid 45 repair mortar or sand and cement with Unibond mix, if drying time permits.

- Existing painted surfaces to be degreased and a bond test carried out to confirm compatibility with the adhesive.

N.B. Altro advise that all wall surfaces other than a conventional solid brick, block or plastered surface should be constructed with a calcium silica board behind cooking/open flame areas.

Panels

Supplier: Altro Walls,
48 Pinbush Road,
South Lowestoft Industrial Estate,
Lowestoft, Suffolk, NR33 7NL
Tel: 01502 561364 Fax: 01502 531461

Reference:	Size:
W103 Extruded EU Grade	2500 x 1220 x 2.5mm Colour White
W104 Extruded EU Grade	3000 x 1220 x 2.5mm Colour White
W001 Laminated EU Grade	2500 x 1250 x 2.5mm Colour White
W133 Laminated EU Grade	2500 x 1250 x 2.5mm Patterned
W136 Extruded EU Grade	2500 x 1220 x 2.5mm Pastel
W137 Extruded EU Grade	3000 x 1220 x 2.5mm Pastel
W140 Extruded EU Grade	2500 x 1220 x 2.5mm Patterned
W141 Extruded EU Grade	3000 x 1220 x 2.5mm Patterned
W160 Laminated EU Grade	2500 x 1250 x 2.5mm Coloured high gloss
W161 Extruded EU Grade	3000 x 1220 x 2.5mm Coloured high gloss

Fire rating

BS 476 Part 7 (1987) surface spread of flame - Class 1
BS 476 Part 6 (1989) fire propagation - Class 0*
(*when installed to a non-combustible substrate)
Certificates available on request.

Drawings

Plant & equipment layout indicating heat emitting units, electrical services layout, plumbing/heating services, radiators etc.

Method of fixing

- Use AltroFix W139 (Ref: A814) two-part polyurethane adhesive spread with a 5mm square notched trowel (Ref: A860). Support the panel on double sided tape (Ref: A815) whilst adhesive cures (approx. 3-5 hours - full cure 24 hours). Back of sheets to be cleaned using Altro Whiterock cleaner/thinner (Ref: A808) or Desolvit wipes (Ref: A817).
- Apply firm even pressure with suitable roller to whole surface area of the panel as work proceeds, to ensure adequate adhesive transfer and good overall bond.

Joint treatment

All joints should be covered with high impact PVCu 'H' joint sections (Ref: A831 two-part joint trim, or G831 single part joint trim). Alternatively a 3-4mm Altro Whiterock silicone sealant joint can be used. All such joints are to be primed with Altro cleaner thinner before sealant is applied (Ref: A802 white, or A806 coloured).

Corner detail

Internal and external corners to be thermoformed on site.

Abutments

- To window frame, door frames, architraves, ceiling & quarry tile - wipe clean & prime the edges with cleaner/thinner (Ref: A808) and seal with Altro Whiterock silicone sealant (Ref: A802 white, or A806 coloured) 3-4mm width joint. Ask for Altro Whiterock detail drawings W1, W2 and WF3.
- To Altro Marine 20 safety flooring with coved skirting overlapped by 50mm with Altro Whiterock, close bottom of sheet with silicone (Ref: A803 clear). Ask for Altro Whiterock detail drawing WF4.

- To Altro safety vinyl flooring with coved skirting - joint to be covered with high impact PVCu transition strip (Ref: A832 two-part trim, or G832 single part trim). Ask for Altro Whiterock detail drawing WF2.
- To resin flooring with coved skirting, close bottom of sheet with single part high impact PVCu trim section (Ref: G834/25). Ask for Altro Whiterock detail drawing WF6.
- Alternatively, close bottom of sheet with high impact PVCu transition strip (Ref: A832 two-part trim, or G832 single part trim) to resin cove upstand. Ask for Altro Whiterock detail drawing WF5.

Finishing

Protective film to be removed. Wipe off any marks and dirt using Altro Whiterock cleaner/thinner (Ref: A808) or Desolvit wipes (Ref: A817). When dry, apply antistatic solution to all surfaces (Ref: A809).

Accessories

If required, high impact PVCu two-part start and edge trim (Ref: A833) or high impact PVCu single part heavy duty start and edge trim (Ref: G833). White powder coated aluminium 'H' joint sections (Ref: A854) and white powder coated aluminium start and edge trim (Ref: A853/25).

Treatment to service preparations

All holes to be cut to allow 3-4mm silicone seal around all penetrations. Clean with cleaner/thinner (Ref: A808) and seal with Altro Whiterock silicone sealant (Ref: A802 white or A806 coloured).

Protection

If required, tape Correx, Megafilm or hardboard to the surface.

for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail walls@altro.com or explore www.altro.com

Altro Whiterock™ hygienic wall and ceiling systems

MAY 2006



Specification M50 PVCu linings to walls
(by AltroFix W139 adhesive system) welded system

Suitable substrates

- Surface straight to within 3mm over a 2m straight edge.
- Sand & cement rendering 1:3 to steel trowel finish.
- 12.5mm thick plasterboard.
- Minimum 9mm W.B.P. resin bonded plywood.
- Minimum 9mm MDF dense wood based panels.
- Certain sound painted surfaces (an adhesive test is advisable to ascertain compatibility).
- Plastered surfaces - finished with steel trowel.
(Note: Surfaces to be thoroughly sealed with diluted PVA or Altro Primer Seal (Ref: AGCPNF/01)).

Moisture content

- All substrates to be dried to 16% WME (Wood Moisture Equivalent) on Protimeter 'Surveymaster' equipment.

Installation temperature

- Recommended ambient temperature of 14°C/57°F for all installation areas.

Substrate preparation (by others)

- All loose paint and dust to be removed.
- Friable surfaces to be removed or made sound, using proprietary treatment e.g. Unibond PVA Sealer or similar water resistant type.
- Depressions in substrate surface should be filled with Ardurapid 45 repair mortar or sand and cement with Unibond mix, if drying time permits.
- Existing painted surfaces to be degreased and bond test carried out to confirm compatibility with adhesive.

N.B. Altro advise that other than a conventional plastered surface, walls should be constructed with a calcium silica board behind cooking/open flame areas.

Panels

Supplier: Altro Walls,
48 Pinbush Road,
South Lowestoft Industrial Estate,
Lowestoft, Suffolk, NR33 7NL
Tel: 01502 561364 Fax: 01502 531461

Reference:	Size:
W103 Extruded EU Grade	2500 x 1220 x 2.5mm Colour White
W104 Extruded EU Grade	3000 x 1220 x 2.5mm Colour White
W001 Laminated EU Grade	2500 x 1250 x 2.5mm Colour White
W136 Extruded EU Grade	2500 x 1220 x 2.5mm Pastel
W137 Extruded EU Grade	3000 x 1220 x 2.5mm Pastel
W160 Laminated EU Grade	2500 x 1250 x 2.5mm Coloured high gloss
W161 Extruded EU Grade	3000 x 1220 x 2.5mm Coloured high gloss

Fire rating

BS 476 Part 7 (1987) surface spread of flame - Class 1
BS 476 Part 6 (1989) fire propagation - Class 0*
(*when installed to a non-combustible substrate)
Certificates available on request.

Drawings

Plant & equipment layout indicating heat emitting units,
electrical services layout, plumbing/heating services,
radiators etc.

Method of fixing

- AltroFix W139 (Ref: A814) 2 part polyurethane adhesive spread with a 5mm square notched trowel (Ref: A860). Panel supported on double sided tape (Ref: A915) whilst adhesive cures (approx. 3-5 hours - full cure 24 hours). Back of sheets to be cleaned using Altro Whiterock cleaner/thinner (Ref: A808) or Desolvit wipes (Ref: A817).
- Apply firm even pressure with suitable roller to whole surface area of panel as work proceeds to ensure adequate adhesive transfer and good overall bond.

Joint treatment

Double sided tape (Ref: A915) bringing a 1.5mm - 2mm gap between sheets. Hot weld and clean off flush with sheet face. See Altro Whiterock detail drawing W9.

Corner detail

Internal and external corners to be thermoformed on site.

Abutments

- To window frame, door frames, architraves, ceiling & quarry tile - wipe clean & prime the edges with cleaner/thinner (Ref: A808) and seal with Altro Whiterock silicone sealant (Ref: A802 white, or A806 coloured) 3-4mm width joint. Ask for Altro Whiterock detail drawings W1, W2 and WF3. Hot weld internal reveal or silicone seal.
- To Altro safety sheet vinyl flooring with coved skirting, joint to be hot welded to PVC sheet, see drawing WF7.
- To Altro Marine 20 safety flooring with coved skirting overlapped by 50mm with Altro Whiterock, close bottom of sheet with silicone (Ref: A803 clear). Ask for Altro Whiterock detail drawing WF4.

- To Altro safety flooring with coved skirting - joint to be covered with high impact PVCu transition strip (Ref: A832 two-part trim, or G832 single part trim). Ask for Altro Whiterock detail drawing WF2.
- To resin flooring with coved skirting, close bottom of sheet with single part high impact PVCu trim section (Ref: G834/25). Ask for Altro Whiterock detail drawing WF6.
- Alternatively, close bottom of sheet with high impact PVCu transition strip (Ref: A832 two-part trim, or G832 single part trim) to resin cove upstand. Ask for Altro Whiterock detail drawing WF5.

Finishing

Protective film to be removed. Wipe off any marks and dirt using Altro Whiterock cleaner/thinner (Ref: A808) or Desolvit wipes (Ref: A817). When dry, apply antistatic solution to all surfaces (Ref: A809).

Accessories

If required, high impact PVCu two-part start and edge trim (Ref: A833) or high impact PVCu single part heavy duty start and edge trim (Ref: G833). White powder coated aluminium 'H' joint sections (Ref: A854) and white powder coated aluminium start and edge trim (Ref: A853/25).

Treatment to service preparations

All holes to be cut to allow 3-4mm silicone seal around all penetrations. Clean with cleaner/thinner (Ref: A808) and seal with Altro Whiterock silicone sealant (Ref: A802 white or A806 coloured).

Protection

If required, Correx, Megafilm or hardboard taped to the surface.

for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail walls@altro.com or explore www.altro.com



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CI/SfB reference		
(43)	T	(U47)
May 2006		

Altro Whiterock™ hygienic wall and ceiling systems

MAY 2006



Specification M50 PVCu linings to walls
(by AltroFix W1 73 adhesive system)

Suitable substrates

- Good quality fairfaced brick or blockwork. Well aligned joints bagged up flush. Straight to within 3mm over a 2m straight edge and bricks/blocks flush with ones adjacent.
- Sand & cement rendering 1:3 to steel trowel finish.
- 12.5mm thick plasterboard.
- Minimum 9mm W.B.P. resin bonded plywood.
- Minimum 9mm MDF dense wood based panels.
- Ceramic tiles which are securely bonded to substrate.
- Certain sound painted surfaces (an adhesive test is advisable to ascertain compatibility).
- Plastered surfaces - finished with steel trowel.
(Note: Surfaces to be thoroughly sealed with diluted PVA or Altro Primer Seal (Ref: AGCPNF/01).

Moisture content

- All substrates to be dried to 16% WME (Wood Moisture Equivalent) on Protimeter 'Surveymaster' equipment.

Installation temperature

- Recommended ambient temperature of 14°C/57°F for all installation areas.

Substrate preparation (by others)

- All loose paint and dust to be removed.
- Friable surfaces should be removed or made sound. Please consult Altro regarding approved sealing treatments.
- Ceramic tiles should be thoroughly degreased, rinsed and allowed to dry.
- Loose tiles should be removed and the area made good using Ardurapid 45 repair mortar or sand and cement with Unibond mix, if drying time permits. Alternatively, a suitable thickness W.B.P. ply, screwed and plugged can be used.
- Depressions in substrate surface should be filled with Ardurapid 45 repair mortar or sand and cement with Unibond mix, if drying time permits.

- Existing painted surfaces to be degreased and a bond test carried out to confirm compatibility with the adhesive.

N.B. Altro advise that all wall surfaces other than a conventional solid brick, block or plastered surface should be constructed with a calcium silica board behind cooking/open flame areas.

Panels

Supplier: Altro Walls,
48 Pinbush Road,
South Lowestoft Industrial Estate,
Lowestoft, Suffolk, NR33 7NL
Tel: 01502 561364 Fax: 01502 531461

Reference:	Size:
W103 Extruded EU Grade	2500 x 1220 x 2.5mm Colour White
W104 Extruded EU Grade	3000 x 1220 x 2.5mm Colour White
W001 Laminated EU Grade	2500 x 1250 x 2.5mm Colour White
W133 Laminated EU Grade	2500 x 1250 x 2.5mm Patterned
W136 Extruded EU Grade	2500 x 1220 x 2.5mm Pastel
W137 Extruded EU Grade	3000 x 1220 x 2.5mm Pastel
W140 Extruded EU Grade	2500 x 1220 x 2.5mm Patterned
W141 Extruded EU Grade	3000 x 1220 x 2.5mm Patterned
W160 Laminated EU Grade	2500 x 1250 x 2.5mm Coloured high gloss
W161 Extruded EU Grade	3000 x 1220 x 2.5mm Coloured high gloss

Fire rating

BS 476 Part 7 (1987) surface spread of flame - Class 1
BS 476 Part 6 (1989) fire propagation - Class 0*
(*when installed to a non-combustible substrate)
Certificates available on request.

Drawings

Plant & equipment layout indicating heat emitting units, electrical services layout, plumbing/heating services, radiators etc.

Method of fixing

- Use AltroFix W1 73 (Ref: A820) two-part cementitious adhesive spread with a 5mm square notched trowel (Ref: A860). Support the panel on double sided tape (Ref: A815) whilst adhesive cures (approx. 12 hours - full cure 24 hours). Back of sheets to be cleaned using Altro Whiterock cleaner/thinner (Ref: A808) or Desolvit wipes (Ref: A817).
- Apply firm even pressure with suitable roller to whole surface area of the panel as work proceeds, to ensure adequate adhesive transfer and good overall bond.

Joint treatment

All joints should be covered with high impact PVCu 'H' joint sections (Ref: A831 two-part joint trim, or G831 single part joint trim). Alternatively a 3-4mm Altro Whiterock silicone sealant joint can be used. All such joints are to be primed with Altro cleaner thinner before sealant is applied (Ref: A802 white, or A806 coloured).

Corner detail

Internal and external corners to be thermoformed on site.

Abutments

- To window frame, door frames, architraves, ceiling & quarry tile - wipe clean & prime the edges with cleaner/thinner (Ref: A808) and seal with Altro Whiterock silicone sealant (Ref: A802 white, or A806 coloured) 3-4mm width joint. Ask for Altro Whiterock detail drawings W1, W2 and WF3.
- To Altro Marine 20 safety flooring with coved skirting overlapped by 50mm with Altro Whiterock, close bottom of sheet with silicone (Ref: A803 clear). Ask for Altro Whiterock detail drawing WF4.

- To Altro safety vinyl flooring with coved skirting - joint to be covered with high impact PVCu transition strip (Ref: A832 two-part trim, or G832 single part trim). Ask for Altro Whiterock detail drawing WF2.
- To resin type flooring with coved skirting, close bottom of sheet with single part high impact PVCu trim section (Ref: G834/25). Ask for Altro Whiterock detail drawing WF6.
- Alternatively, close bottom of sheet with high impact PVCu transition strip (Ref: A832 two-part trim, or G832 single part trim) to resin cove upstand. Ask for Altro Whiterock detail drawing WF5.

Finishing

Protective film to be removed. Wipe off any marks and dirt using Altro Whiterock cleaner/thinner (Ref: A808) or Desolvit wipes (Ref: A817). When dry, apply antistatic solution to all surfaces (Ref: A809).

Accessories

If required, high impact PVCu two-part start and edge trim (Ref: A833) or high impact PVCu single part heavy duty start and edge trim (Ref: G833). White powder coated aluminium 'H' joint sections (Ref: A854) and white powder coated aluminium start and edge trim (Ref: A853/25).

Treatment to service preparations

All holes to be cut to allow 3-4mm silicone seal around all penetrations. Clean with cleaner/thinner (Ref: A808) and seal with Altro Whiterock silicone sealant (Ref: A802 white or A806 coloured).

Protection

If required, tape Correx, Megafilm or hardboard to the surface.

for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail walls@altro.com or explore www.altro.com

Altro Whiterock™ hygienic wall and ceiling systems

MAY 2006



Specification M50 PVCu linings to walls
(by AltroFix W173 adhesive system) welded system

Suitable substrates

- Surface straight to within 3mm over a 2m straight edge.
- Sand & cement rendering 1:3 to steel trowel finish.
- 12.5mm thick plasterboard.
- Minimum 9mm W.B.P. resin bonded plywood.
- Minimum 9mm MDF dense wood based panels.
- Certain sound painted surfaces (an adhesive test is advisable to ascertain compatibility).
- Plastered surfaces - finished with steel trowel.
(Note: Surfaces to be thoroughly sealed with diluted PVA or Altro Primer Seal (Ref: AGCPNF/01)).

Moisture content

- All substrates to be dried to 16% WME (Wood Moisture Equivalent) on Protimeter 'Surveymaster' equipment.

Installation temperature

- Recommended ambient temperature of 14°C/57°F for all installation areas.

Substrate preparation (by others)

- All loose paint and dust to be removed.
- Friable surfaces to be removed or made sound, using proprietary treatment e.g. Unibond PVA Sealer or similar water resistant type.
- Depressions in substrate surface should be filled with Ardurapid 45 repair mortar or sand and cement with Unibond mix, if drying time permits.
- Existing painted surfaces to be degreased and bond test carried out to confirm compatibility with adhesive.

N.B. Altro advise that other than a conventional plastered surface, walls should be constructed with a calcium silica board behind cooking/open flame areas.

Panels

Supplier: Altro Walls,
48 Pinbush Road,
South Lowestoft Industrial Estate,
Lowestoft, Suffolk, NR33 7NL
Tel: 01502 561364 Fax: 01502 531461

Reference:	Size:
W103 Extruded EU Grade	2500 x 1220 x 2.5mm Colour White
W104 Extruded EU Grade	3000 x 1220 x 2.5mm Colour White
W001 Laminated EU Grade	2500 x 1250 x 2.5mm Colour White
W136 Extruded EU Grade	2500 x 1220 x 2.5mm Pastel
W137 Extruded EU Grade	3000 x 1220 x 2.5mm Pastel
W160 Laminated EU Grade	2500 x 1250 x 2.5mm Coloured high gloss
W161 Extruded EU Grade	3000 x 1220 x 2.5mm Coloured high gloss

Fire rating

BS 476 Part 7 (1987) surface spread of flame - Class 1
BS 476 Part 6 (1989) fire propagation - Class 0*
(*when installed to a non-combustible substrate)
Certificates available on request.

Drawings

Plant & equipment layout indicating heat emitting units, electrical services layout, plumbing/heating services, radiators etc.

Method of fixing

- AltroFix W173 (Ref: A820) 2 part cementitious adhesive spread with a 5mm square notched trowel (Ref: A860). Panel supported on double sided tape (Ref: A915) whilst adhesive cures (approx. 12 hours - full cure 24 hours). Back of sheets to be cleaned using Altro Whiterock cleaner/thinner (Ref: A808) or Desolvit wipes (Ref: A817).
- Apply firm even pressure with suitable roller to whole surface area of panel as work proceeds to ensure adequate adhesive transfer and good overall bond.

Joint treatment

Double sided tape (Ref: A915) bringing a 1.5mm - 2mm gap between sheets. Hot weld and clean off flush with sheet face. See Altro Whiterock detail drawing W9.

Corner detail

Internal and external corners to be thermoformed on site.

Abutments

- To window frame, door frames, architraves, ceiling & quarry tile - wipe clean & prime the edges with cleaner/thinner (Ref: A808) and seal with Altro Whiterock silicone sealant (Ref: A802 white, or A806 coloured) 3-4mm width joint. Ask for Altro Whiterock detail drawings W1, W2 and WF3. Hot weld internal reveal or silicone seal.
- To Altro safety sheet vinyl flooring with coved skirting, joint to be hot welded to PVC sheet, see drawing WF7.
- To Altro Marine 20 safety flooring with coved skirting overlapped by 50mm with Altro Whiterock, close bottom of sheet with silicone (Ref: A803 clear). Ask for Altro Whiterock detail drawing WF4.

- To Altro safety vinyl flooring with coved skirting - joint to be covered with high impact PVCu transition strip (Ref: A832 two-part trim, or G832 single part trim). Ask for Altro Whiterock detail drawing WF2.
- To resin flooring with coved skirting, close bottom of sheet with single part high impact PVCu trim section (Ref: G834/25). Ask for Altro Whiterock detail drawing WF6.
- Alternatively, close bottom of sheet with high impact PVCu transition strip (Ref: A832 two-part trim, or G832 single part trim) to resin cove upstand. Ask for Altro Whiterock detail drawing WF5.

Finishing

Protective film to be removed. Wipe off any marks and dirt using Altro Whiterock cleaner/thinner (Ref: A808) or Desolvit wipes (Ref: A817). When dry, apply antistatic solution to all surfaces (Ref: A809).

Accessories

If required, high impact PVCu two-part start and edge trim (Ref: A833) or high impact PVCu single part heavy duty start and edge trim (Ref: G833). White powder coated aluminium 'H' joint sections (Ref: A854) and white powder coated aluminium start and edge trim (Ref: A853/25).

Treatment to service preparations

All holes to be cut to allow 3-4mm silicone seal around all penetrations. Clean with cleaner/thinner (Ref: A808) and seal with Altro Whiterock silicone sealant (Ref: A802 white or A806 coloured).

Protection

If required, Correx, Megafilm or hardboard taped to the surface.

for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail walls@altro.com or explore www.altro.com



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CI/SfB reference		
(43)	T	(U47)
May	2006	

Altro Whiterock™ hygienic wall and ceiling systems

MAY 2006



Specification M50 PVCu linings to walls (by Altro W157 adhesive system)

Suitable substrates

- Good quality sound non friable (see substrate preparation) fairfaced porous surfaces. Straight to within 3mm over a 2m straight edge.
- Sand & cement rendering 1:3 to a steel trowel finish.
- 12.5mm thick plasterboard.
(Note: Moisture resistant boards not suitable.)
- Minimum 9mm thick W.P.B. resin bonded plywood.
- Certain sound emulsion surfaces (an adhesive test is advisable to ascertain compatibility).
- Plastered surfaces - finished with steel trowel.
(Note: Surfaces to be thoroughly sealed with diluted PVA or Altro Primer Seal (Ref: AGCPNF/01))

N.B. This adhesive is only suitable for porous surfaces, for non-porous surfaces refer to AltroFix W139 or W173 system.

Moisture content

- All substrates to be dried to 16% WME (Wood Moisture Equivalent) on Protimeter 'Surveymaster' equipment.

Installation temperature

- Recommended ambient temperature of 14°C/57°F for all installation areas.
Adhesive should not be stored at temperatures below 5°C.

Substrate preparation (by others)

- All loose paint and dust to be removed, and free from all contaminates.
- Friable surfaces to be stabilised using appropriate stabilising solution e.g. Unibond diluted 1:10 with water applied with brush or roller and allowed to dry.
- Depressions in substrate surface should be filled with a suitable filler or repair mortar, levelled and allowed to dry.

N.B. Altro advise that walls adjacent to cooking/ open flame areas should be constructed from non-combustible materials.

Panels

Supplier: Altro Walls,
48 Pinbush Road,
South Lowestoft Industrial Estate,
Lowestoft, Suffolk, NR33 7NL
Tel: 01502 561364 Fax: 01502 531461

Reference:	Size:
W103 Extruded EU Grade	2500 x 1220 x 2.5mm Colour White
W104 Extruded EU Grade	3000 x 1220 x 2.5mm Colour White
W001 Laminated EU Grade	2500 x 1250 x 2.5mm Colour White
W133 Laminated EU Grade	2500 x 1250 x 2.5mm Patterned
W136 Extruded EU Grade	2500 x 1220 x 2.5mm Pastel
W137 Extruded EU Grade	3000 x 1220 x 2.5mm Pastel
W140 Extruded EU Grade	2500 x 1220 x 2.5mm Patterned
W141 Extruded EU Grade	3000 x 1220 x 2.5mm Patterned
W160 Laminated EU Grade	2500 x 1250 x 2.5mm Coloured high gloss
W161 Extruded EU Grade	3000 x 1220 x 2.5mm Coloured high gloss

Fire rating

BS 476 Part 7 (1987) surface spread of flame - Class 1
BS 476 Part 6 (1989) fire propagation - Class 0*
(*when installed to a non-combustible substrate)
Certificates available on request.

Drawings

Plant & equipment layout indicating heat emitting units, electrical services layout, plumbing/heating services, radiators etc.

Method of fixing

- Clean back of sheet with Altro Whiterock cleaner/thinner (Ref: A808) or Desolvit Wipes (Ref: A817).
- Apply AltroFix W157 (Ref: A818) water based synthetic polymer adhesive to the back of the sheet using a 3mm deep x 5mm wide square notched trowel (Ref: A860/4).
On application immediately apply sheet to the wall. Apply pressure with a suitable roller to whole surface area of panel as work proceeds to ensure adequate adhesive transfer and good overall bond.

N.B. On completion, the installation should not be subject to an increase in ambient temperature to more than 50°C until the adhesive is fully cured. Full cure will be dependent on porosity of substrate.

Joint treatment

All joints should be covered with high impact PVCu 'H' joint sections (Ref: A831 two-part joint trim, or G831 single part joint trim). Alternatively a 3-4mm Altro Whiterock silicone sealant joint can be used. All such joints are to be primed with Altro cleaner thinner before sealant is applied (Ref: A802 white, or A806 coloured).

Corner detail

Internal and external corners to be thermoformed on site.

Abutments

- To window frame, door frames, architraves, ceiling & quarry tile - wipe clean & prime the edges with cleaner/thinner (Ref: A808) and seal with Altro Whiterock silicone sealant (Ref: A802 white, or A806 coloured) 3-4mm width joint. Ask for Altro Whiterock detail drawings W1, W2 and WF3.
- To Altro Marine 20 safety flooring with coved skirting overlapped by 50mm with Altro Whiterock, close bottom of sheet with silicone (Ref: A803 clear). Ask for Altro Whiterock detail drawing WF4.

- To Altro safety flooring with coved skirting - joint to be covered with high impact PVCu transition strip (Ref: A832 two-part trim, or G832 single part trim). Ask for Altro Whiterock detail drawing WF2.
- To resin flooring with coved skirting, close bottom of sheet with single part high impact PVCu trim section (Ref: G834/25). Ask for Altro Whiterock detail drawing WF6.
- Alternatively, close bottom of sheet with high impact PVCu transition strip (Ref: A832 two-part trim, or G832 single part trim) to resin cove upstand. Ask for Altro Whiterock detail drawing WF5.

Finishing

Protective film to be removed. Wipe off any marks and dirt using Altro Whiterock cleaner/thinner (Ref: A808) or Desolvit wipes (Ref: A817). When dry, apply antistatic solution to all surfaces (Ref: A809).

Accessories

If required, high impact PVCu two-part start and edge trim (Ref: A833) or high impact PVCu single part heavy duty start and edge trim (Ref: G833). White powder coated aluminium 'H' joint sections (Ref: A854) and white powder coated aluminium start and edge trim (Ref: A853/25).

Treatment to service preparations

All holes to be cut to allow 3-4mm silicone seal around all penetrations. Clean with cleaner/thinner (Ref: A808) and seal with Altro Whiterock silicone sealant (Ref: A802 white or A806 coloured).

Protection

If required, tape Correx, Megafilm or hardboard to the surface.

for further information or technical advice

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e-mail walls@altro.com or explore www.altro.com



PRODUCT WARRANTY /

explore **altroism** at www.altro.com

Altro Whiterock™
Hygienic Cladding & Doors

Altro Whiterock

10 Year Product Warranty

Altro trading as Altro Walls ('Altro') warrants that, in the event of an Altro Whiterock hygienic cladding system or door (excludes door furnishings and fittings) requiring replacement due to a defect in the product within 10 years from the date of application, anywhere within the UK, the defective product will be replaced free of charge provided that:

- it has been fitted and maintained according to specification and the relevant Altro product data sheet, and
- it has been subjected to only normal wear and to no physical or chemical abuse and
- the registration form has been returned/submitted to Altro fully completed within three months of installation.

This Warranty does not extend to marking from burning agents, staining of the surface of the material or failure of or damage to the material due to circumstances beyond the control of Altro, including failure due to excessive moisture, vapour pressure or alkaline reactions, structural movement or substrate deterioration of the wall and spillages of chemicals to which the Altro Whiterock hygienic cladding system has no or limited resistance.

- Any claim made under this Warranty shall be investigated by Altro.
- Altro's liability is limited to supplying, free of charge, sufficient material to replace that found to be defective.
- All purchases of Altro Whiterock hygienic cladding systems are subject to the Terms and Conditions of Sale of Altro as amended by the terms of this Warranty.
- Nothing in this Warranty affects your statutory rights as a customer.

Register online
visit www.altro.com

Enter the services section, click on warranty registration and complete the on-line warranty form.



Altro Whiterock

10 Year Product Warranty

Installation Site: _____

Address: _____

Area Type: _____

Specifying Authority/Customer: _____

Installed by: _____

Date of Installation _____

Batch No. and Quantity: _____ m²

Customer Name: _____

Address: _____

Tel: _____

To be completed by Altro

Customer No: _____

Warranted Contract No: _____

Signed (for Altro) _____

Name: _____

Position: _____



a l t r o

Complete overleaf and fax to: **01462 707515**

or place in an envelope and post to:

**Altro Walls, 48 Pinbush Road, South Lowestoft Industrial Estate,
Lowestoft, Suffolk NR33 7NL**

Altro Walls, A division of Altro Limited, 48 Pinbush Road,
South Lowestoft Industrial Estate, Lowestoft, Suffolk NR33 7NL.
Telephone: 01502 561364 Fax: 01502 588848 E-mail: walls@altro.com

section two /

Altro Quickclad

Register online
visit www.altro.com

Enter the services section, click on warranty registration and
complete the on-line warranty form.

explore **altroism** at www.altro.com

Altro Quickclad™ - Features and Benefits

Features

- Quick to install
- Tailored panelling
- Hides services etc.
- Can be used over uneven substrates
- Can be used over damp substrates
- 90° internal and external bends
- Different detailing at floor / wall junction
- Can be installed in Listed buildings
- A dry system

Benefits

- Fast track installation / reduced down time
- For full and easy access behind cladding
- Cables, pipes etc. can be hidden behind sheet
- No substrate preparation required prior to installation
- Altro Whiterock limitations when bonding sheet to a damp service
- Sheet routed to form internal and external corners, without the use of performed angles
- Can accommodate vinyl, resin or tiled flooring
- Without the need to fully bond Ideal for hygienic areas PVC sheet will not support the growth of bacteria
- Minimal adhesive etc. required in the installation




Altro Quickclad hygienic wall and ceiling systems

Data sheet

Rigid foam PVC sheet W171/172

SEPTEMBER 2006

Altro Quickclad is a demountable partition wall system for areas where other wall finishes cannot be bonded directly to the substrate. It is ideal for use where the substrate is damp or uneven. It is ideally suited to accommodate access to cables and pipes etc.

Description

Format:	Extruded, tough, durable, lightweight rigid foam PVC sheets
Colour:	White
Surface finish:	Satin
Thickness:	10mm
Dimension:	2500 x 1250mm (W171) 3000 x 1250mm (W172)
Weight:	Average 5.7kg/m ² based on average SI 0.57g/m ³
Max service temp	60°C

Altro Quickclad lightweight rigid foam sheet is supplied with a protective film to the face, which can be left in place until the room is ready for use.

This also helps protect the surface from dust while other trades are in the area. It is ideal for applications requiring a hygienic easy to clean almost maintenance free wall finish, and where there is a need for the surface finish to stand off the existing substrate, e.g.: to accommodate services, poor quality or damp substrates, listed buildings, or to non load bearing partitions.

Fixing

Rigid sheets are fixed to a galvanized steel stud/framework system, consisting of head and sill channels (Ref: AMF6 or AGL8) and vertical studs (Ref: PMF5 or AGL1) fixed using wafer head screws (Ref: A611 or A611/25). Framework fixed direct to substrate packing out plumb or increasing void width using set off brackets (Ref: AGL9). (See installation guide for full details).

Cutting

A portable or bench mounted circular saw with TCT blade or a jig saw with a course cutting blade for best results. A fine toothed handsaw can also be used.

Jointing

By means of a 2 part high impact PVC cover strip incorporating a neoprene co-extruded seal snapping into an aluminium backing, mechanically fixed to the galvanized metal stud/framework.

Internal and external corners

Altro Quickclad internal and external corners are formed on site using routing and cold forming techniques.

Internal corners are formed by grooving one panel and bonding to the adjacent panel using PVC adhesive (Ref: AP2020).

External corners are formed by routing a 'V' groove to the back of sheet folding, then bonding with adhesive (Ref: AP2020).

Window and door reveals are neatly formed without recourse to additional trims.

See the Altro Quickclad Installation Guide for details.

Vulnerable external corners are usually overlaid with stainless steel corner protectors to a height of 1200mm.

Cleaning

Regular cleaning using a soft cloth and a suitably diluted mild detergent is all that is normally required.

Stubborn marks can be removed with Altro Cleaner (Ref: A859) or non-abrasive domestic type cream bath cleaner.

Do not use abrasive pads or wire wool.

Do not clean above 60°C.

Cleaning cards are available on request.

Chemical resistance

Resistance to a wide range of chemicals, specific details on request.

Availability

Ex-Stock.

Storage & conditioning (on site)

Sheets should be stored flat, fully supported and left for 24 hours to attain the ambient room temperature prior to installation (min 14°C).

Fire resistance

Achieves Class 1 when tested to BS 476: Part 7, 1987.
Fire propagation Class 0 to BS 476 Part 6 1989

Limitations of use

Altro Quickclad has a maximum working temperature of 60°C. For temperatures contact Technical Services on 01502 561364.

Typical applications

- Commercial kitchens
- Laboratories
- Pharmaceutical areas
- Food manufacturing areas
- Listed buildings

Installation

Installation instructions are available from Altro.
Contact Technical Services on 01502 561364.

System 1

This system is for use where the void between the substrate and the back face of the panel can be adjusted using packers/shims placed behind the vertical galvanised metal supports, (Ref: PMF5) which are in turn fixed to head and floor channels, (Ref: AMF6) to accommodate substrate variations in the vertical and horizontal plains. This system will accommodate a void from a minimum of 30mm, up to a maximum of 49mm.

System 2

This system is for use where the void between the substrate and the back face of the panel can be adjusted using liner brackets, (Ref: AGL9) attached to vertical galvanised metal supports, (Ref: AGL1). This system provides strength, rigidity and support enabling a maximum, 200mm void to be attained.

Note: Partition walls may also be constructed to allow both faces to be lined by utilising a generic jumbo stud system.

Property	Units	Average Value	Standard
Specific gravity	gcm ³	0.57	DIN EN ISO 1183
E_modulus	Mpa	1050	ISO 527 (50mm/min)
Flexural strength	Mpa	21	ISO 178 (2mm/min)
Impact resistance (Charpy)	KJ/m ²	20	ISO 179/1eU
Compressive strength	N/mm ²	6	DIN 53421
Vicat softening point	°C	73-76	ISO 306 (B50)
Shore-hardness D	-	66-70	ISO 868
Thermal conductivity	W/M°C	0.063	DIN 52612
Coefficient of thermal expansion	10 ⁴ /K	6.10 ⁻⁵	DIN 53752
Water absorption	%	4.9	ISO 62 (after 216h)

for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail walls@altro.com or explore www.altro.com



Installation and maintenance guidance

Altro Quickclad™ walling systems

JUNE 2005

Altro has been manufacturing and installing Altro Whiterock™ PVCu wall cladding for over 20 years. During this time we have developed well proven installation techniques for these materials. The following pages will explain some of the techniques needed, and provide other information essential to the Walling Contractor to achieve a high standard of installation when using the Altro Quickclad systems.



Please note the following important points :

- Health & Safety requirements should always be followed, relevant data sheets are available on request
- Materials should be stored safely at the recommended temperatures. (Refer to Technical Data)
- Panels should be maintained at a temperature which they would be expected to perform at after installation
- Chemical resistance charts should be consulted prior to specifying
- The colour used is stand alone for this system, and varies in shade to others in the Walls range
- A void between the substrate and the panel can range from a minimum of 30mm up to a max of 200mm depending on the chosen framing system

- Consideration should be given when existing equipment is to be retained as the overall room sizes will be reduced.

Altro Quickclad systems

Altro Quickclad is a revolutionary wall lining or partition system which can be mechanically fixed to existing poor quality substrates where it may be unsuitable to use the Altro Whiterock system, which relies on bonding to sound, dry, fairfaced substrates, thus eliminating costly remedial repairs.

Comprising of two alternative support systems, which utilises galvanised steel profiles, to which a 10mm thick panel 1250mm wide and up to 3000mm long, of expanded PVC can be secured. The panels are joined together with a two-part Aluminium/PVCu H section incorporating a neoprene gasket in the face section creating a water tight seal.

Internal and external corners are fabricated from the sheets of expanded PVC, using routing techniques and adhesive, eliminating the necessity for pre-formed corner trims.



Recommended equipment & tools

General:

- Basic Carpentry/ Joiners tools
- 1- Laser/ Water Level
- 6 - Qwik Clamps Or 'G' Cramps
- 1 - 3m long straight edge, approx. 100mm wide x 19mm (to be used as a router fence)
- 1- Sturdy work bench 2.440mm x 1220mm
- 2 - 3m x 75mm x 75mm PSE Timber
- 1 - Metal Snips
- 1- Skeleton Gun
- Course Jig Saw Blades
- Masonry Drill Bits

Electrical:

- 1- 110v Transformer
- 1- 110v Splitter Box
- 4- 110v Extension Leads
- 1 -110v Jigsaw
- 1- 110v Percussion Drill
- 2- 110v Routers with quarter inch shanks
- 1- Battery Drill (with Posidrive adaptor)

Safety Equipment:

- Safety Goggles.
- Ear Defenders.
- Other appropriate site PPE

Specialist: (Available from Altro Walls)

- 1 - QCRC2 45 degree Router Cutter TCT
- 1 - QCRC1 Straight Fluted Cutter TCT

Framing systems

Consideration should be given at the specification stage as to the required distance the finished surface of the panels are to be set off from the original substrate, and to the required floor and ceiling details.(See specific details).

There are two framing options available and they are as follows:

System 1

This system is for use where the void between the substrate and the back face of the panel can be adjusted using packers/shims placed behind the vertical galvanised metal supports, (Ref PMF5) which are in turn fixed to head and floor channels, (Ref AMF6) to accommodate substrate variations in the vertical and horizontal plains. This system will accommodate a void from a minimum of 30mm, up to a maximum of 49mm.

System 2

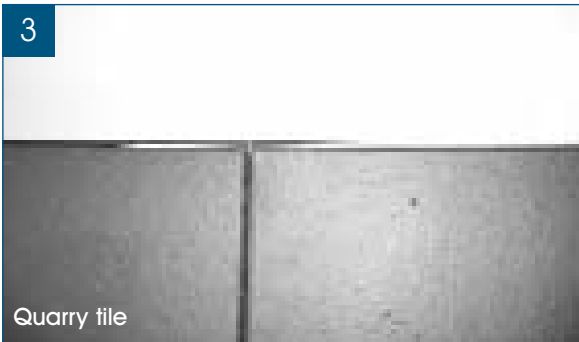
This system is for use where the void between the substrate and the back face of the panel can be adjusted using liner brackets, (Ref AGL9) attached to vertical galvanised metal supports, (Ref AGL1). This system provides strength, rigidity and support enabling a maximum, 200mm void to be attained.

Note: Partition walls may also be constructed to allow both faces to be lined by utilising a generic jumbo stud system. Contact Altro Walls Technical Dept for further information.

Floor and ceiling detailing

All systems can incorporate the desired finish, typical examples as follows::

Floor



Setting out

System 1

Each run of wall, i.e. between room corners should be treated separately. The position of the front face of the finished Quickclad wall lining should be agreed ensuring that allowances are made to accommodate for the variances in the substrate undulations, and that the void between the back of the Quickclad panel and the substrate does not exceed 49mm. (Max 19mm packing behind vertical metal studs (Ref PMF5) For voids between 49mm and 200mm refer to system 2.

A string line should be pulled and chalked on the floor, between each abutment, to mark the line/position of the 'U' Channel, (Ref AMF6). Using a plumb and chalk line or laser, transfer the floor datum line to the ceiling. Columns in any given run should be treated in the same manner keeping as tight to the substrate as possible, minimising the need for packing, marking the position on the floor, then transferring those lines to the ceiling.

Pre drill 'U' channel sections (Ref AMF6) at 400mm centres and fix to floor and ceiling datum line ensuring that the longest leg of the channel section faces the substrate, butt jointing where internal and external intersect.

At all internal and external corner junctions cut galvanised steel L sections (Ref A870/30) to length so that it can be fixed on front face of 'U' channel (Ref AMF6) using Wafer Head Screws (Ref A611).

Cut the vertical studs (Ref PMF5) to length so that they can be inserted into the 'U' channel, (Ref AMF6) at approximately 600mm centres, (See Fig 4) commencing at a corner where a full panel is to be applied. If a gap is left exceeding 600mm an additional section should be inserted and centred in the given gap. **DO NOT FIX TO U CHANNELS AT THIS STAGE.**



At window and door openings run a section of vertical stud (Ref PMF5) down the length of the reveal, ensuring it is plumb, and secure into top and bottom channel with wafer head screws, (Ref A611). At windows and doors trim out head and sill, (sill to windows only) with cut sections of galvanised steel angle, (Ref A870/30) and fix to vertical studs, (Ref PMF5). (See Fig 5)



Setting out

System 2

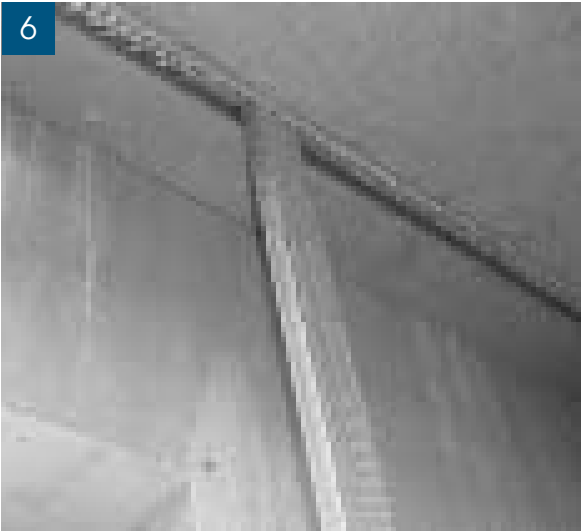
Each run of wall, i.e. between room corners should be treated separately. The position of the front face of the finished Quickclad wall lining should be agreed ensuring that allowances are made to accommodate services and equipment to be sited in the void, and that the void between the back of the Quickclad panel and the substrate does not exceed 200mm. For voids between 30 and 49mm refer to system 1. For voids in excess of 200mm contact Altro Technical Services.

A string line should be pulled and chalked on the floor, between each abutment, to mark the line/position of the 'U' Channel, (Ref AGL8). Using a plumb and chalk line or laser, transfer the floor datum line to the ceiling. Columns in any given run should be treated in the same manner, ensuring due consideration is given to services and equipment being sited in the void, marking the position on the floor, and transferring those lines to the ceiling.

Pre drill 'U' channel sections (Ref AGL8) at 400mm centres and fix to floor and ceiling datum line ensuring that the longest leg of the channel section faces the substrate, butt jointing where internal and external intersect.

At all internal and external corner junctions cut galvanised steel L sections (Ref A870/30) to length so that it can be fixed on front face of 'U' channel (Ref AGL8) using Wafer Head Screws (Ref A611).

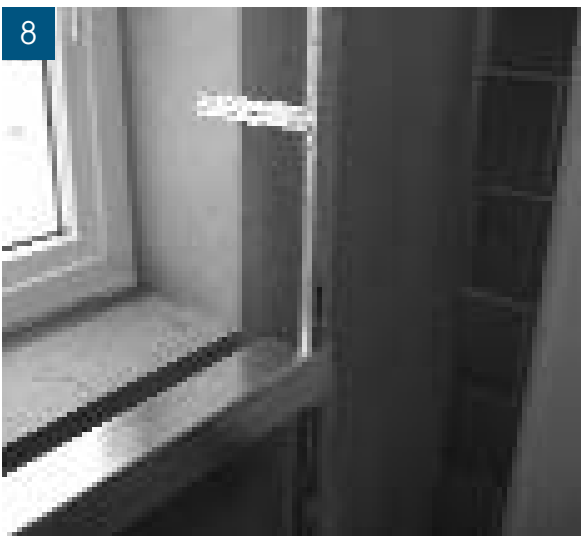
Cut Vertical stud sections (Ref AGL1) to length so that they can be inserted into the 'U' Channel (Ref AGL8) at approximately 600mm centres, (See Fig 6) commencing at a corner where a full panel is to be applied, if a gap is left exceeding 600mm an additional section should be inserted and centred in the given gap. **DO NOT FIX TO U CHANNELS AT THIS STAGE.**



At window and door openings run a section of vertical stud, (Ref AGL1) down the length of the reveal, ensuring it is plumb, and secure into top and bottom channel with wafer head screws, (Ref A611). 2 further fixings should be attached where possible using adjustable brackets, (Ref AGL9). (See Fig 7)



At windows and doors trim out head and sill, (sill windows only) with cut sections of galvanised steel angle, (Ref A870/30) and fix to vertical studs, (Ref AGL1). (See Fig 8)



Panel application

The procedures for applying the panels, jointing, and finishing are the same for both framing systems.

Before commencing the installation of the Quickclad panels to the metal framing system, the finishing details to floor and ceiling junction must be confirmed and agreed. The various methods of finishing are listed within this Installation Guide. The choice of detail finishes should take into consideration the type and use to which the area of installation is to be put. This is particularly important with regard to the floor/wall junction.

Vinyl Self Cove (See Fig 1)

Select the desired cove height e.g 100mm, (See table below for relationship of cove to aluminium height). Temporarily fix, horizontal and level, the Aluminium back section of the 2 part Cut Tile Transition Strip (Ref A872) to vertical metal studs, (Ref PMF5 for System 1 or AGL1 for System 2) using 12mm x No 6 Posidrive self tapping hard point screws, ensuring that the Aluminium back sections are left 10mm short of the internal and external corner junctions. As the installation of the panels proceeds, the vertical studs, (Ref PMF5 or AGL1) will require adjusting laterally to ensure accurate location and alignment with the joints between the panels.

Visible Coving Height	Height from FFL to top of Aluminium back section of Cut Tile Transition Strip (Ref A872)
200mm	238mm
150mm	188mm
100mm	138mm

Cut Aluminium back section of 2 Part Quickclad 2 Part Joint Profile (Ref A871) to fit between top of Aluminium back Section of the Cut Tile Transition Strip (Ref A872) and the ceiling. Fix through centre of section into only the vertical metal studs, (Ref PMF5 or AGL1) which are to be located at the joint between the panels, using 25mm x No 6 Posidrive self tapping hard point screws at 300mm centres. (See Fig 9)



Note: The intermediate metal studs, those placed at 600mm centres behind the panels between the joints are for support only and will not require the fixing of the back plate of the Aluminium Joint Strip.

To provide a suitable substrate to fix the desired flooring material too, as work proceeds, and only when the vertical metal studs, (Ref PMF5 or AGL1) have been fixed in their permanent position, or on completion of the panel installation, a WBP Plywood moisture resistant MDF or a PVCu material, (if there is a possibility of moisture or water ingress) infill, should be mechanically fixed to framework between the floor and the bottom of the Aluminium back plate of the 2 Part Cut Tile Transition Strip, (Ref A872) using the 25mm x No 6 Posidrive self tapping hard point screws. (See Fig 10). Depending on the flooring to be used the following thickness of infill should be used to maintain a correct seal.



Skirting Thickness	Infill Thickness
2-3mm	12.5mm
3-4mm	10mm

Quarry Tile (See Fig 3)

Fix vertical metal studs, (Ref PMF5 or AGL1) as above. Determine tile height to be used, fix temporary profile horizontal and level. As the installation of the panels proceeds, the vertical studs, (Ref PMF5 or AGL1) will require adjusting laterally to ensure accurate location and alignment with the joints between the panels.

Cut Aluminium back section of 2 Part Quickclad Joint Section, (Ref A871) from top of temporary profile to ceiling and fix through centre into only the vertical metal studs, (Ref PMF5 or AGL1) which are to be located at the joint between the panels, using 25mm x No 6 Posidrive screws at 300 centres.

On completion of the installation of the Quickclad panels remove temporary profile.

To provide substrate suitable to fix tile skirting too mechanically fix 10mm WBP resin bonded plywood to vertical metal studs, (Ref PMF5 or AGL1) with 25mm x No 6 Posidrive self tapping hard point screws. Infill panel to be installed 3mm off the floor and 3mm from the bottom of the Quickclad pvc panel, to provide for expansion. Fill and seal both gaps with Altro Silicone Sealant (Ref A802) to prevent the ingress of moisture.

Sit on Cove (See Fig 2)

Fix vertical galvanised metal studs, (Ref PMF5 or AGL1) as above. As the installation of the panels proceeds, the vertical studs, (Ref PMF5 or AGL1) will require adjusting laterally to ensure accurate location and alignment with the joints between the panels.

Cut Aluminium back section of 2 Part Quickclad Joint Section, (Ref A871) from floor to ceiling and fix through centre of section using 25mm x No 6 Posidrive screws at 300mm centres.

Sheets should be fitted to within 3mm of floor, using temporary packers to support the panels until adhesive has cured. Remove packers and seal with Altro Clear Silicone, (Ref A803). Fix Sit On Cove using adhesive (Ref AltroFix NF25).

Note: There is no requirement for 2 Part Cut Tile Transition Strip, (Ref A872) to Quarry tile or Sit on Cove detail.

Resin

Contact Altro Technical Department for various options available.

Fixing panels

Measurements should be taken, with a view to minimising the number of joints and to be aesthetically pleasing where possible, however this may well be governed by positions of electrical and plumbing equipment. Joints that coincide with these should be avoided so that all openings are in a whole or part panel.

ALWAYS start at in internal corner. Cut the panel to length allowing for 2mm gap at the ceiling junction and 3mm gap between the bottom of the sheet and mid section of the Aluminium back section of the 2 Part Quickclad Cut Tile Transition Strip, (Ref A872) or the temporary profile where 'Quarry Tiles' are to be used or the floor for the 'Sit on Cove' detail. On the face side and 3mm in from the edge which butts into the corner, router a groove 11mm wide 5mm deep. (See Fig 11).



This groove receives the square edge of the joining panel forming the internal corner. See 'Fabricating Internal & External Corners' description. The same procedure must be adopted for all internal corners.

Offer panel in situ pushing grooved end of the panel up against the internal corner framework. (See Fig 12).



Mark position of edge of panel at ceiling level on 'U' channel, (Ref AMF6 or AGL8) and at floor level on Aluminium back plate of Cut Tile Transition strip (Ref A872) or temporary profile for 'Quarry Tile detail or floor 'U' channel, (Ref AMF6 or AGL8) for 'Sit on Cove' detail.

Position vertical metal studs (Ref A872 back plate fixed to PMF5 or AGL1) so that a parallel gap of 3mm will be

left between sheet and the middle section of the back plate of the 2 part Aluminium Joint Strip (Ref A871). Secure top and bottom to floor and ceiling 'U' channel, (Ref AMF6 or AGL8). Insert packers behind vertical metal studs, (Ref PMF5) (See Fig 13) or install adjustable metal brackets, (Ref AGL9) to vertical metal studs, (Ref AGL1) to ensure framework is plumb and rigid ready to receive Quickclad panels.



Vertical metal studs, (Ref PMF5 and AGL1) should be fixed to the substrate at a maximum of 800mm centres.

Position the intermediate vertical studs (Ref PMF5 and AGL1) equally spaced, and at a maximum of 600mm centres, between those joint sections, (Ref A872) secure at top and bottom, pack out plumb and fix to substrate at a maximum of 800mm centres as previous.

Apply a thick bead of Parabond Adhesive, (Ref AP600) to metal framework which will come into contact with the back of the Quickclad panels as work proceeds. Present Quickclad panel to frame sitting it on a 3mm temporary packer where necessary, to provide the required expansion gap, pressing firmly back to ensure adequate adhesive transfer to sheet.

Repeat procedure for further panels ALWAYS ensuring a 3mm gap is allowed where panel meets front of aluminium section, and at floor level, together with a 2mm gap at ceiling level.

Continue installation until all panels finishing at an internal corner are in place, and have the routed groove in place to accept joining panel.

Typical Junction to stainless steel showing cut outs for electrical sockets and extraction outlet. (See Fig 14)



Fabricating internal and external corners

Internal corners

The first panel installed should be grooved using a router fitted with a 11mm dia' fluted cutter, (Ref QCRC1) on the face side of the panel 3mm from edge to a depth of 5mm. (See Fig 15). Clean groove thoroughly removing all loose swarf.

Fix panel to metal framework as described earlier.



After adjoining panel has been cut to size, apply a 3mm bead of adhesive, (Ref AP2020) to groove and insert panel. Panel adhesive, (Ref AP600) applied to metal framework prior to positioning the panels will hold joint together until adhesive cures in approximately 45mins. If required, and in wet environments a small bead of Altro White Silicone Sealant (Ref A802) can be applied into the angle after adhesive has set.

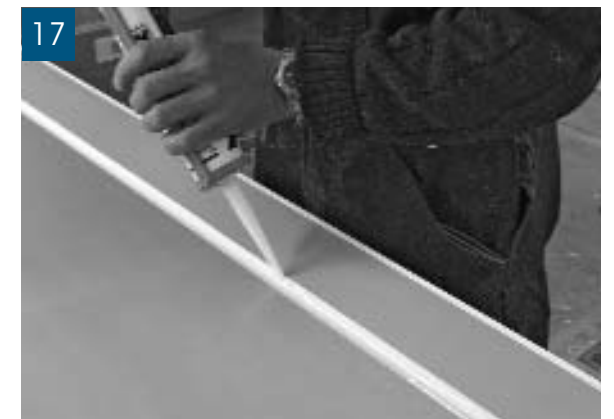
External corners

Cut panel to length. To obtain position of fold in panel, measure width of panel required to the vertical corner of the galvanised metal framework. To whatever this dimension is add 9mm, to accommodate for the thickness of the panel being folded. Transfer this dimension to the back side of the panel, marking top and bottom of the panel connect the 2 points with a straight edge. This line will be the centre of the groove. Set router bit (Ref QCRC2) to a depth of 9.5mm so as not to penetrate through the front face of the panel.



Clamp straight edge down the length of the panel to act as a fence for the router. Set fence to the correct distance from line marking centre of groove to ensure router cuts to that line. (This distance will vary according to the type of router being used). Router groove to entire length of panel. Clean groove thoroughly removing all loose swarf. (See Fig 16)

Apply a 3mm bead of adhesive, (Ref AP2020) and fold to 90 degrees. Clamp in place until adhesives cures in approximately 45minutes. (See Figs 17, 18 & 19)



If multiple corners are required, e.g. to a pier 18mm should be added to measurement from first mark to allow for routing the second groove in the one operation, prior to bonding.

Finishing

Cover trims

When all panels are installed, peel back protective film and cut cover trims to length. Lubricate with soapy water and secure into aluminium backing using a rubber mallet and clean off. (See Figs 20, 21 & 22)



If required fit transition cover trim, (Ref A872) as above, relieving rear of trim to allow forming around internal/ external corners.

Cleaning and ceiling

Remove all protective paper.

Clean off any dust, or residual scuff marks, also around window frame, doors, ceiling junction or abutments using Altro Cleaner Thinner, (Ref A808) or Desolvit Wipes, (Ref A811) and seal with White Silicone sealant, (Ref A802). COSHH Data supplied.

Wipe all areas with clean paper soaked in A809 Anti-static solution and wipe clean with a dry cloth.

Maintenance and cleaning

Please refer to separate cleaning card.



Altro Quickclad hygienic wall and ceiling systems
Specification K13 PVC linings to walls

SEPTEMBER 2006

Background

- Brick or blockwork.
- Sand & cement rendering.
- 12.5mm thick plasterboard.
- W.B.P. resin bonded plywood.
- MDF dense wood based panels.
- Ceramic tiles
- Painted surfaces
- Plastered surfaces

Installation temperature

- Recommended ambient temperature of 14°C/57°F for all installation areas.

Panels

Supplier: Altro Walls, 48 Pinbush Road, South Lowestoft Industrial Estate, Lowestoft, Suffolk NR33 7NL
Tel: 01502 561364 Fax: 01502 531461

Reference	Colour
W171 Extruded PVC sheets	2500 x 1250 x 10mm Colour White
W172 Extruded PVC sheets	3000 x 1250 x 10mm Colour White

Fire rating

BS 476 Part 7 (1987) surface spread of flame - Class 1
BS 476 Part 6 (1989) fire propagation - Class 0
Certificates available on request.

Drawings

Plant & equipment layout indicating heat emitting units, electrical service layout, plumbing/heating services, radiators etc.

Method of fixing

Rigid sheets are fixed to a galvanised steel stud/ framework system, consisting of head and sill channels (Ref: AMF6 or AGL8) and vertical studs (Ref: PMF5 or AGL1) fixed using wafer head screws (Ref: A611 or A611/25). Framework fixed direct to substrate packing out plumb or increasing void width using set off brackets (Ref: AGL9).

Joint treatment

By means of a 2 part high impact PVC cover strip incorporating a neoprene co-extruded seal snapping into an aluminium backing, mechanically fixed to the galvanised metal stud/framework.

Corner detail

Altro Quickclad internal and external corners are formed on site using routing and cold forming techniques. Internal corners are formed by grooving one panel and bonding to the adjacent panel using PVC adhesive (Ref AP2020). External corners are formed by routing a 'V' groove to the back of sheet folding, then bonding with adhesive (Ref: AP2020).

Abutments

- To window frame, door frames and ceiling, wipe clean & prime the edges with cleaner/thinner (Ref: A808) and seal with Altro silicone sealant (Ref: A802 white) 3-4mm width joint.
- To Altro safety vinyl flooring with coved skirting - joint to be covered with high impact PVC transition strip (Ref: A872 single part trim).
- To resin flooring with coved skirting, close bottom of sheet with high impact PVC transition strip (Ref: A872 single part trim).

for further information or technical advice
tel: 01502 561364 fax: 01502 531461
e-mail: walls@altro.com or explore www.altro.com

for further information or technical advice
tel: 01502 561364 fax: 01502 531461
e-mail walls@altro.com or explore www.altro.com



altro

CI/StB reference
(43) T (U47)

September 2006

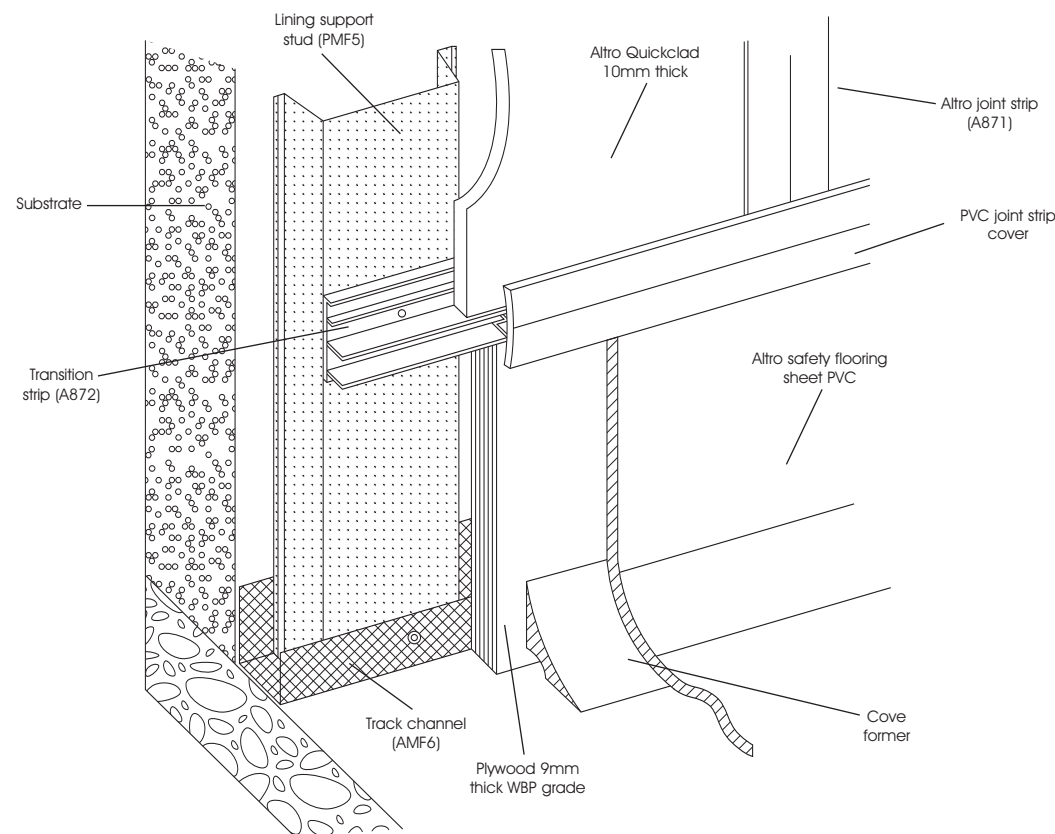
Altro Quickclad PVC wall cladding to Altro safety flooring detail

typical specification (Ref: QWF1)
system 1 – direct fix detail

SEPTEMBER 2006

Altro Quickclad rigid PVC foam sheets fixed to a galvanised steel stud framework system, consisting of head and sill channels (Ref: AMF6) and vertical studs (Ref: PMF5) fixed with wafer head screws (Ref: 611). Vertical studs fixed at maximum 600mm centres. The void between substrate and back of panel can be adjusted using packers/shims behind the vertical metal supports. This will accommodate a void from minimum 30mm up to maximum of 49mm.

Packers/shims should be positioned at nominal 1000mm centres. Fix transition strip (A872) to front face of vertical metal supports with self tapping hard point screws at the appropriate skirting height. To provide a suitable substrate for the safety flooring skirting, fix 9mm WBP resin bonded plywood to the vertical metal studs with 25mm x No 6 Posidrive self tapping hard point screws. Fix PVC joint strip cover after installation of the safety flooring skirting.



for further information or technical advice

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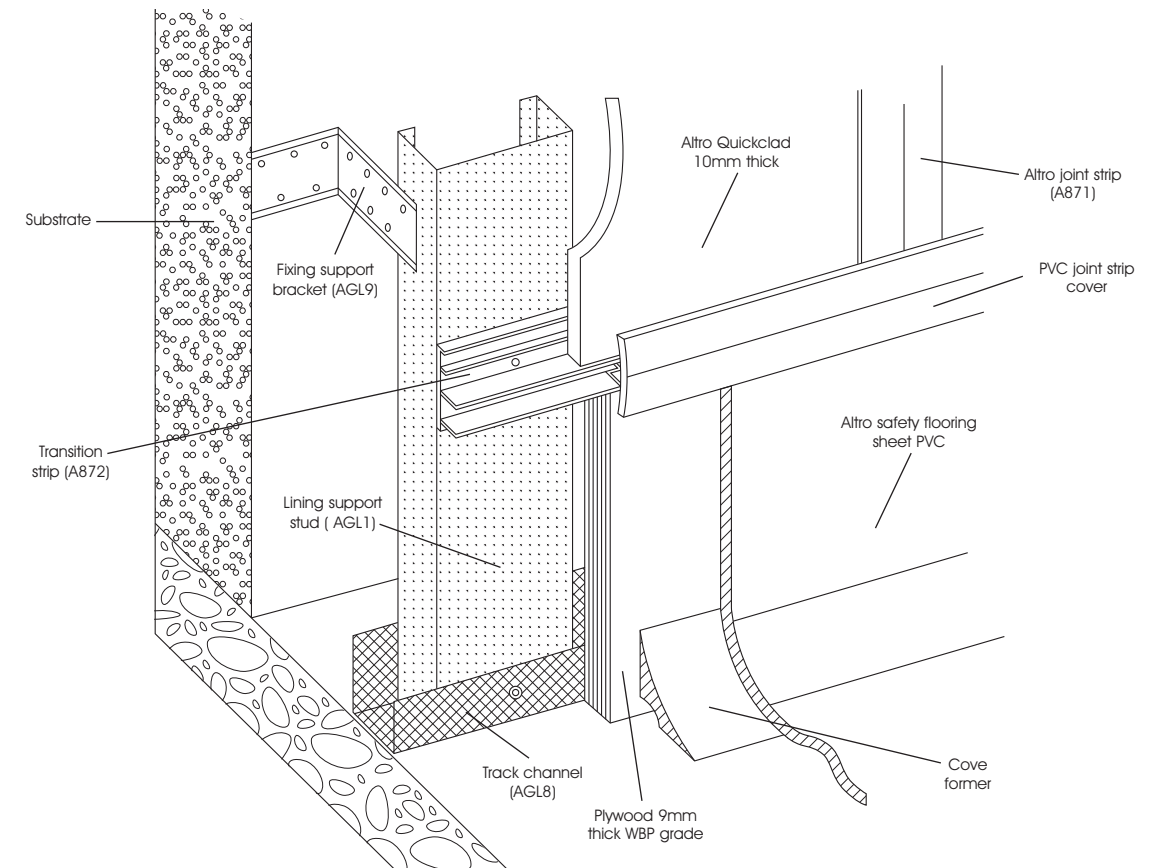
Altro Quickclad PVC wall cladding to Altro safety flooring detail

typical specification (Ref: QWF2)
system 2 – off wall detail

SEPTEMBER 2006

Altro Quickclad rigid PVC foam sheets fixed to a galvanised steel stud framework system, consisting of head and sill channels (Ref: AGL8) and vertical studs (Ref: AGL1) fixed with wafer head screws (Ref: 611). Vertical studs fixed at maximum 600mm centres. The void between substrate and back of panel can be adjusted using fixing brackets (Ref AGL9) attached to the vertical metal supports. Fixing brackets will accommodate a void up to maximum of 200mm.

Brackets should be positioned at nominal 1000mm centres. Fix transition strip (A872) to front face of vertical metal supports with self tapping hard point screws at the appropriate skirting height. To provide a suitable substrate for the safety flooring skirting, fix 9mm WBP resin bonded plywood to the vertical metal studs with 25mm x No 6 Posidrive self tapping hard point screws. Fix PVC joint strip cover after installation of the safety flooring skirting.



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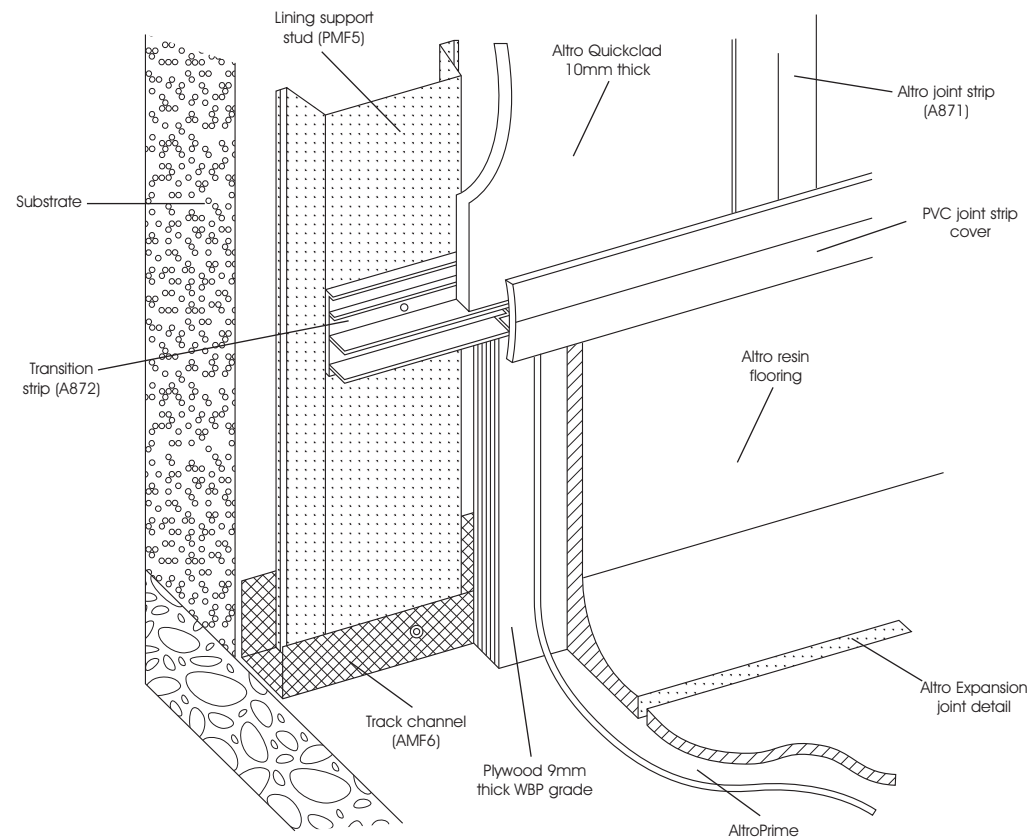
Altro Quickclad PVC wall cladding to Altro resin flooring detail

typical specification (Ref: QWF3)
system 1 – direct fix detail

SEPTEMBER 2006

Altro Quickclad rigid PVC foam sheets fixed to a galvanised steel stud framework system, consisting of head and sill channels (Ref: AMF6) and vertical studs (Ref: PMF5) fixed with wafer head screws (Ref: 611). Vertical studs fixed at maximum 600mm centres. The void between substrate and back of panel can be adjusted using packers/shims behind the vertical metal supports. This will accommodate a void from minimum 30mm up to maximum of 49mm.

Packers/shims should be positioned at nominal 1000mm centres. Fix transition strip (A872) to front face of vertical metal supports with self tapping hard point screws at the appropriate skirting height. To provide a suitable substrate for the resin flooring skirting, fix 9mm WBP resin bonded plywood to the vertical metal studs with 25mm x No 6 Posidrive self tapping hard point screws. Fix PVC joint strip cover after installation of the resin floor skirting.



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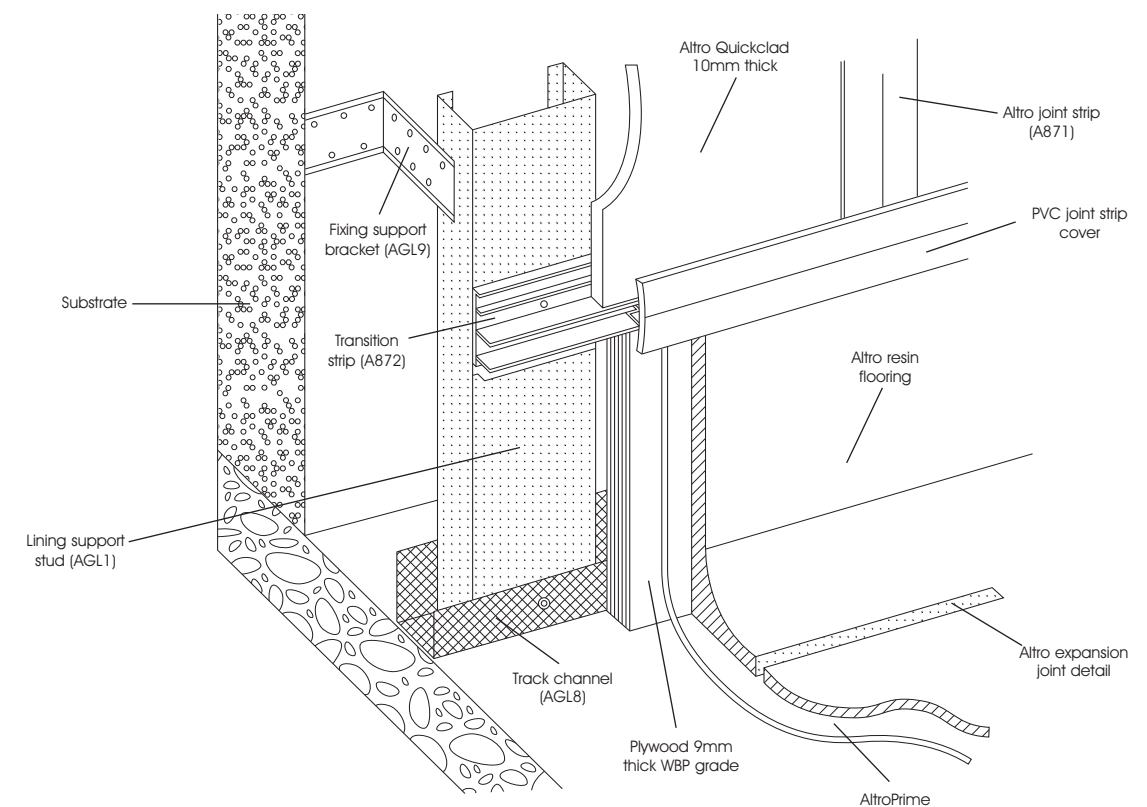
Altro Quickclad PVC wall cladding to Altro resin flooring detail

typical specification (Ref: QWF4)
system 2 – off wall detail

SEPTEMBER 2006

Altro Quickclad rigid PVC foam sheets fixed to a galvanised steel stud framework system, consisting of head and sill channels (Ref: AGL8) and vertical studs (Ref: AGL1) fixed with wafer head screws (Ref: 611). Vertical studs fixed at maximum 600mm centres. The void between substrate and back of panel can be adjusted using fixing brackets (Ref: AGL9) attached to the vertical metal supports. Fixing brackets will accommodate a void up to maximum of 200mm.

Brackets should be positioned at nominal 1000mm centres. Fix transition strip (A872) to front face of vertical metal supports with self tapping hard point screws at the appropriate skirting height. To provide a suitable substrate for the resin flooring skirting, fix 9mm WBP resin bonded plywood to the vertical metal studs with 25mm x No 6 Posidrive self tapping hard point screws. Fix PVC joint strip cover after installation of the resin floor skirting.



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Altro Quickclad PVC wall cladding to quarry tile floor detail

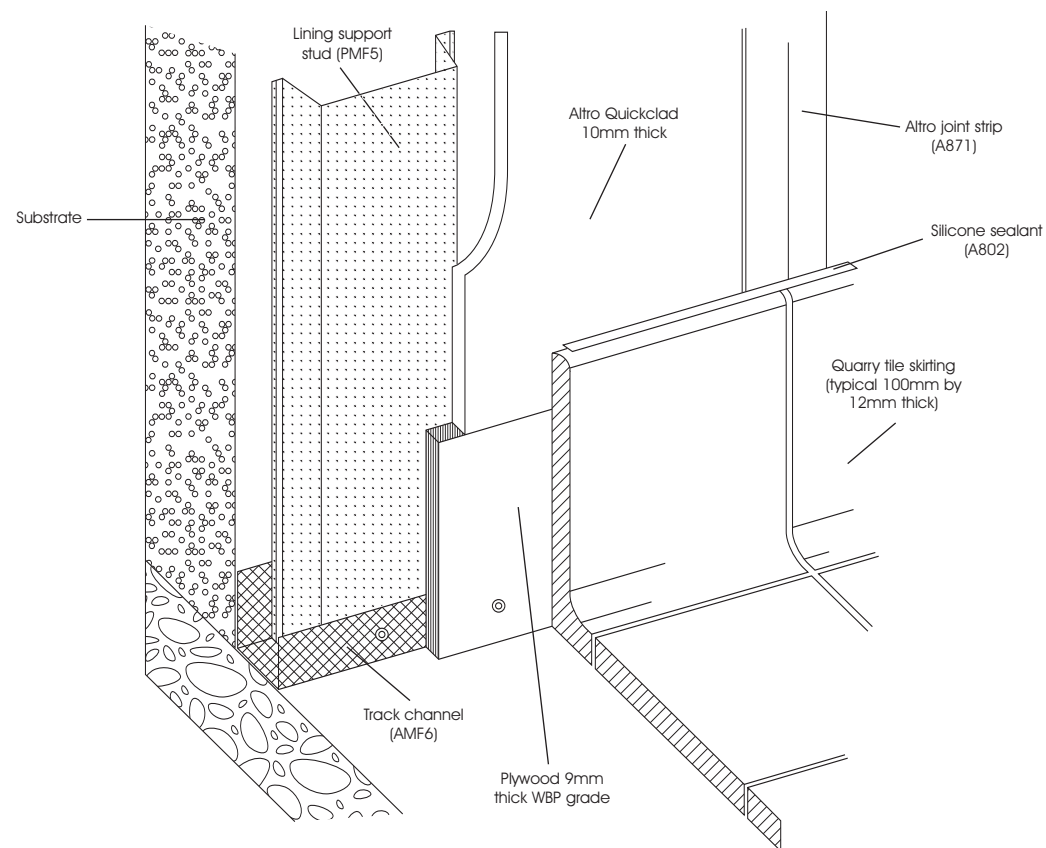
typical specification (Ref: QWF5)

system 1 – direct fix detail

SEPTEMBER 2006

Altro Quickclad rigid PVC foam sheets fixed to a galvanised steel stud framework system, consisting of head and sill channels (Ref: AMF6) and vertical studs (Ref: PMF5) fixed with wafer head screws (Ref: 611). Vertical studs fixed at maximum 600mm centres. The void between substrate and back of panel can be adjusted using packers/shims behind the vertical metal supports. This will accommodate a void from minimum

30mm up to maximum of 49mm. Packers/shims should be positioned at nominal 1000mm centres. To provide a suitable substrate for the quarry tile skirting, fix 9mm WBP resin bonded plywood to the vertical metal studs with 25mm x No 6 Posidrive self tapping hard point screws. Apply Altro silicone sealant (Ref: A802) at the junction of PVC cladding and skirting.



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Altro Quickclad PVC wall cladding to quarry tile floor detail

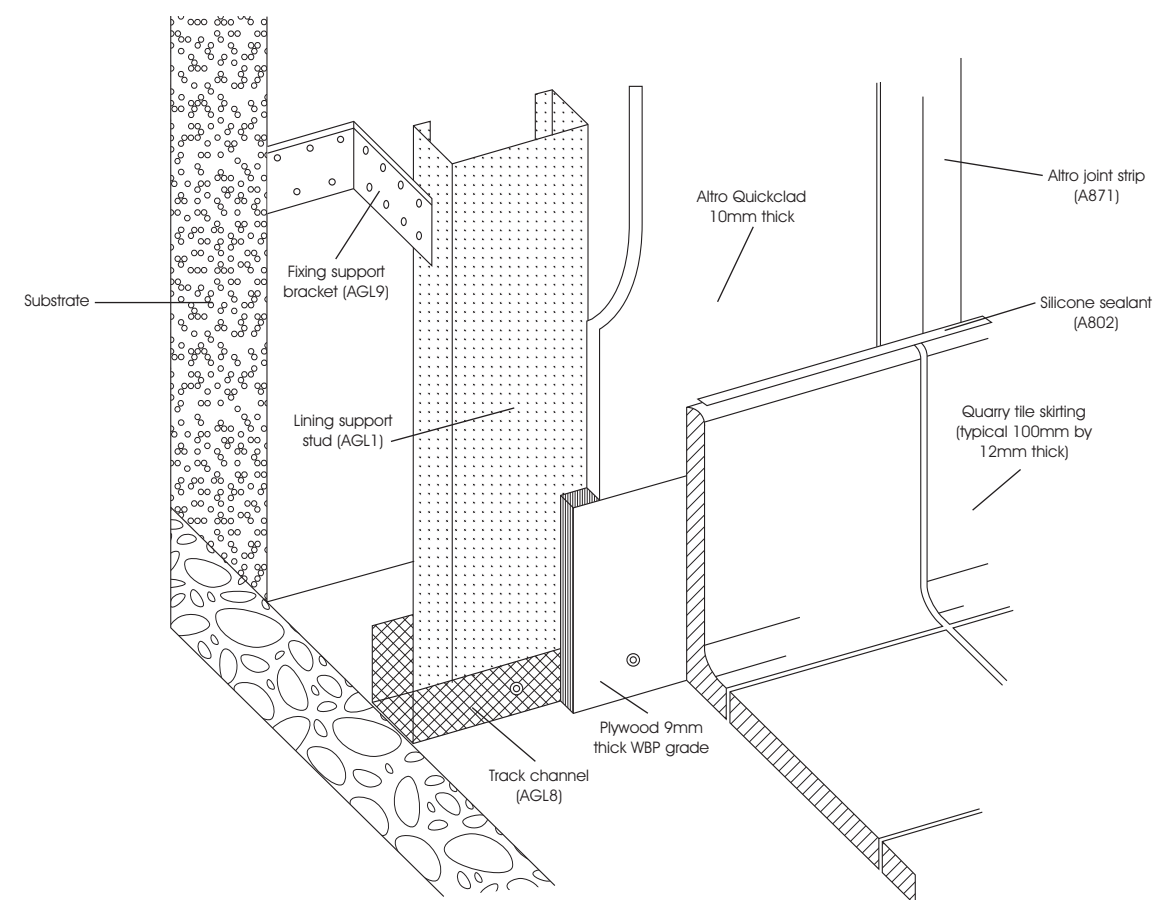
typical specification (Ref: QWF6)

system 2 – off wall detail

SEPTEMBER 2006

Altro Quickclad rigid PVC foam sheets fixed to a galvanised steel stud framework system, consisting of head and sill channels (Ref: AGL8) and vertical studs (Ref: AGL1) fixed with wafer head screws (Ref: 611). Vertical studs fixed at maximum 600mm centres. The void between substrate and back of panel can be adjusted using fixing brackets (Ref AGL9) attached the vertical metal supports. Fixing brackets will

accommodate a void up to maximum of 200mm. Brackets should be positioned at nominal 1000mm centres. To provide a suitable substrate for the quarry tile skirting, fix 9mm WBP resin bonded plywood to the vertical metal studs with 25mm x No 6 Posidrive self tapping hard point screws. Apply Altro silicone sealant (Ref: A802) at the junction of PVC cladding and skirting.



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Altro Quickclad PVC wall cladding to quarry tile floor detail

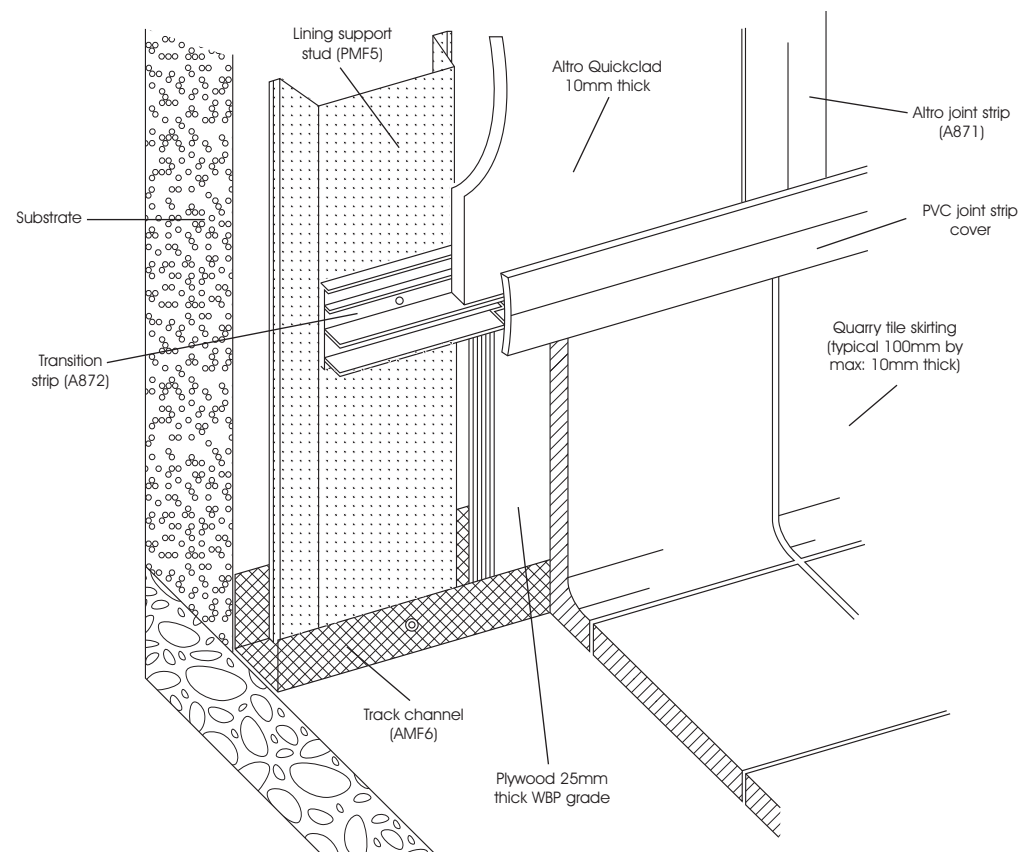
typical specification (Ref: QWF7)

system 1 – direct fix detail

SEPTEMBER 2006

Altro Quickclad rigid PVC foam sheets fixed to a galvanised steel stud framework system, consisting of head and sill channels (Ref: AMF6) and vertical studs (Ref: PMF5) fixed with wafer head screws (Ref: 611). Vertical studs fixed at maximum 600mm centres. The void between substrate and back of panel can be adjusted using packers/shims behind the vertical metal supports. This will accommodate a void from minimum 30mm up to maximum of 49mm.

Packers/shims should be positioned at nominal 1000mm centres. Fix transition strip (A872) to front face of vertical metal supports with self tapping hard point screws at the appropriate skirting height. To provide a suitable substrate for the quarry tile skirting, fix 25mm WBP resin bonded plywood into floor track channel (AMF6) with 25mm x No 6 Posidrive self tapping hard point screws. Fix PVC joint strip cover after installation of the quarry tile floor and skirting.



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Altro Quickclad PVC wall cladding to quarry tile floor detail

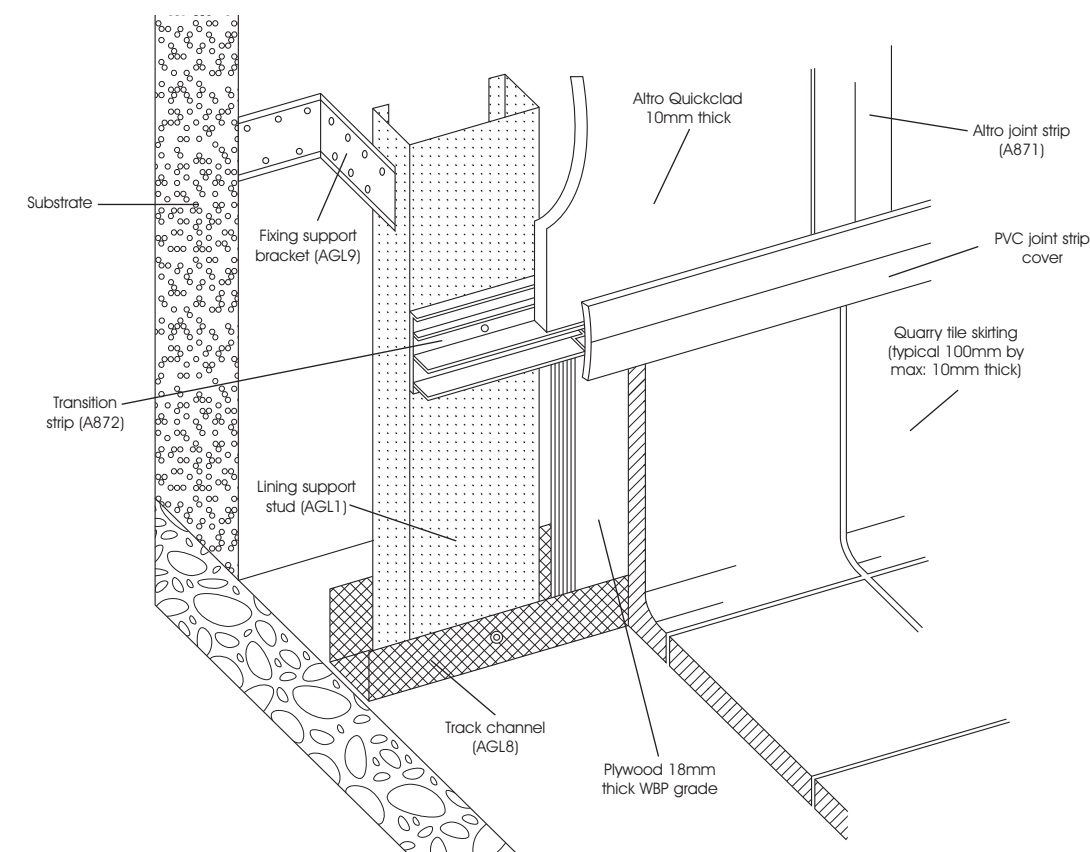
typical specification (Ref: QWF8)

system 2 – off wall detail

SEPTEMBER 2006

Altro Quickclad rigid PVC foam sheets fixed to a galvanised steel stud framework system, consisting of head and sill channels (Ref: AGL8) and vertical studs (Ref: AGL1) fixed with wafer head screws (Ref: 611). Vertical studs fixed at maximum 600mm centres. The void between substrate and back of panel can be adjusted using fixing brackets (Ref AGL9) attached to the vertical metal supports. Fixing brackets will accommodate a void up to maximum of 200mm.

Brackets should be positioned at nominal 1000mm centres. Fix transition strip (A872) to front face of vertical metal supports with self tapping hard point screws at the appropriate skirting height. To provide a suitable substrate for the quarry tile skirting, fix 18mm WBP resin bonded plywood into floor track channel (AGL1) with 25mm x No 6 Posidrive self tapping hard point screws. Fix PVC joint strip cover after installation of the quarry tile floor and skirting.



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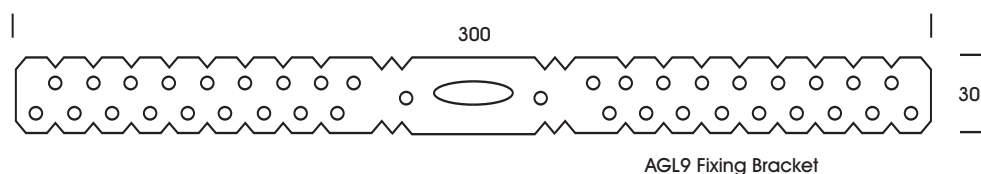
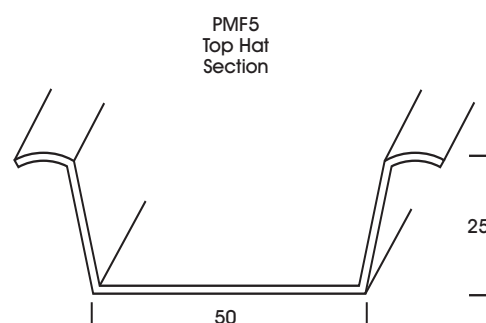
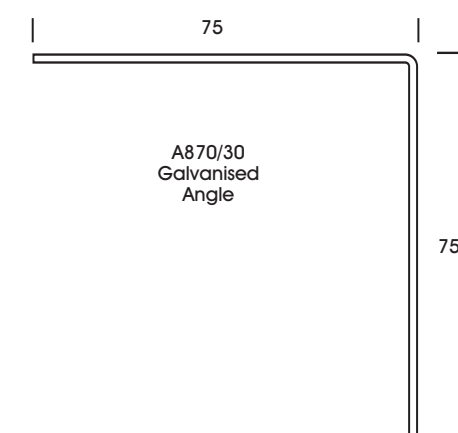
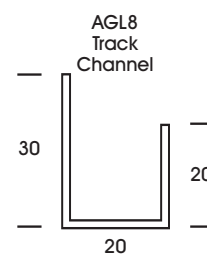
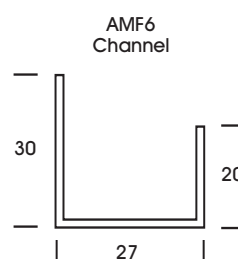
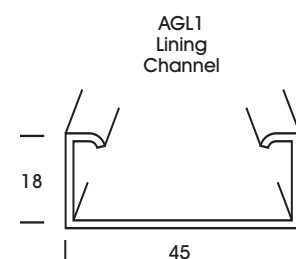
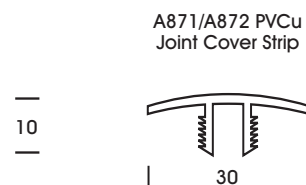
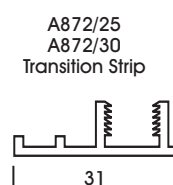
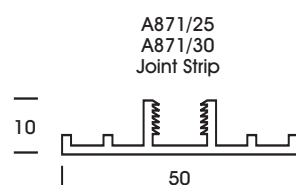
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(43) T (U47)

September 2006

Altro Quickclad accessories

SEPTEMBER 2006



Note: Items shown are not to scale.
All measurements in mm.

Accessories

- Access panels: constructed from Altro Quickclad PVC panels, bonded to a white powder coated aluminium trim mechanically fixed through the aluminium trim to the support structure. (Ref: A626Q).
- Access panels: **Pre-fabricated PVC units supplied by Howe Green Ltd (www.howegreen.co.uk) or other similar manufacturers.**
- Coving detail: (A851) 2 part PVCu/alloy coving, for secondary fixing to ceiling/wall junction. Mechanically fixed through alloy back plate to the substrate.
- Vulnerable external corners are usually overlaid with stainless steel corner protectors to a height of 1200mm.

Finishing

Protective film to be removed. Wipe off any marks and dirt using Altro cleaner/thinner (Ref: A808) or Desolvit wipes (Ref: A817). When dry, apply antistatic solution to all surfaces (Ref: A809).

Treatment to surface preparations

All holes to be cut to allow 3-4mm silicone seal around all penetrations. Clean with cleaner/thinner (Ref: A808) and seal with Altro silicone sealant (Ref: A802 white).

Protection

If required, tape Correx, Megafilm or hardboard to the surface.

System 1 specification

This system is for use where the void between the substrate and the back face of the panel can be adjusted using packers/shims placed behind the vertical galvanised metal supports, (Ref: PMF5) which are in turn fixed to head and floor channels, (Ref: AMF6) to accommodate substrate variations in the vertical and horizontal planes. This system will accommodate a void from a minimum of 30mm, up to a maximum of 49mm.

System 2 specification

This system is for use where the void between the substrate and the back face of the panel can be adjusted using liner brackets, (Ref AGL9) attached to vertical galvanised metal supports, (Ref: AGL1). This system provides strength, rigidity and support enabling a maximum, 200mm void to be attained.

Note: Partition walls may also be constructed to allow both faces to be lined by utilising a generic jumbo stud system.

for further information or technical advice

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section three /

Altro wall coating systems



Altro Zolatone

Technical data sheet

JULY 2006

Product description

Altro Zolatone is a multicoloured; spray applied wall coating consisting of separate particles suspended in a liquid solution. Unlike ordinary paints, which produce a solid colour, Altro Zolatone produces a finish of depth and texture as well as a multicolour finish with continuous colour – the multicolours go right down to the wall.

This rich, visual texture is achieved only through the use of appropriate spray equipment, primers and application techniques. Altro Zolatone offers a variety of products and services including water base multicolour and conventional polymer multicolour. Clear Altro Zolatone topcoats are optional and not normally required. Contact Altro Walls if overcoats are desired.

With over 180 colour options included in a base range, other variants are available from our specialist range with the added option of a colour matching service to meet your specific requirements.

Altro Zolatone carries a 6-Year Product Warranty.

Features

Water-based/Waterborne single pack component

- Non – hazardous
- Low odour
- Quick drying
- Colour stable
- UV Resistant
- Choice of colours
- Minimum of two topcoats required
- Spray applied (by specialist applicators)
- Invisible spot repairs possible during product lifetime
- Formulation details held on file to allow continuation of other areas at a later date

Typical areas of use

Altro Zolatone can be used on internal walls and ceilings, which are constructed from a range of common building materials, although performance and aesthetic appearance is improved if applied to continuous, smooth substrates. Typical applications include:

- Serveries
- Lobby areas
- Corridors/stairwells
- Changing rooms
- Offices
- Reception areas
- Toilets/wash areas
- Fitness studios
- Bedrooms/bathrooms

Technical Performance

Fire	BS476 Part 6+7	Class 0 (on non-combustible substrate)
Scratch resistance	BS3900 Part E2 + 5.3	
Impact resistance	BS3900 Part E3	
Scrub resistance	ASTM D-2486	



Surface preparation

- Holes, cracks and imperfections should be repaired using normal patching materials and procedures as recommended for your specific substrate
- Non-porous substrates should be chemically cleaned to eliminate any reaction from applied coating
- Sand with 120-grit sandpaper
- Remove sanding dust
- Seal the surface with the appropriate basecoat

Application

Once the basecoat is installed, the Altro Zolatone process requires two steps, the sheer step and the pattern step. These steps are accomplished by varying the ratio of the air pressure to material (fluid) pressure.

Application equipment

Conventional spray equipment using Binks 2001 or equivalent spray gun with an Internal Mix Aircap suitable for the range applied. Please refer to the equipment and setting charts for complete equipment recommendations.

Cleaning

Periodic washing with a liquid, general purpose, non-abrasive cleanser should keep most surfaces looking like new. For more stubborn stains, a mild abrasive cleaner may be used. When cleaning deep dark colours caution should be observed as abrasive cleaners tend to de-gloss deep colours. Avoid using cleaners, which contain chlorine. Please refer to Altro Walls Technical Department for specific information.

Coverage rates

Approx. 12–14m² per US Gallon for completed system. Textured or rough surfaces will reduce coverage rates.

Drying times

Under normal circumstances, individual components are usually touch dry within 1 hour. Low temperatures and high relative humidity will extend drying times.

Product sizes

- 1 – US Gallon (3.79 Litres)
- 5 – US Gallons (18.95 Litres)

Colour choice

The Altro Zolatone range comprises three separate collections:

- Naturals – a selection of whites, creams, beiges and greys
- Colours and Accents – Trend, Heritage and Classic colours
- Metals – high fashion, metallic finishes

In addition, specifiers can choose from over 70,000 preformulated colours or can take advantage of Altro's bespoke colour matching service - tell us the colour you want and we will produce it. Samples usually available within 21 days. Please ask for further information.

Notes:

Altro Zolatone is not suitable for use in showers or wash bays where the wall is consistently exposed to hot water.

Not suitable for areas where foodstuffs may be stored or exposed to finished substrates.

Do not apply in damp conditions or at a temperature below 5°C.

Applied or uncured materials should be protected from frost.

Health & safety

Safety Data Sheets available from Altro Walls on 01502 561364.

ALTRO WALLS ADHESIVE INFORMATION
ALTROFIX™ WT73

for further information or technical advice

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e-mail: walls@altro.com or explore www.altro.com

Altro Zolatone M60 Painting/Clear Finishing Specification

JULY 2006

Background

- Plasterboard (All joints taped, filled and sanded)
- Hardwall Plaster
- New or previously Painted Surfaces
- Cement Render (Steel Trowel Finish)
- High Density Blockwork (All joints filled)
- Wood Surfaces
- Ceramic Tiles, Fibreglass, Glass
- Metals – Galvanised, Stainless Steel, Aluminium
- Ferrous Metals

Note:

1. Although Altro Zolatone can be applied to most surfaces, ideally it should be applied to smooth, continuous surfaces to achieve the best aesthetic appearance.
2. Please refer to NBS clauses 400 to 652, which cover the majority of preparation work.
3. A range of primers is available to suit most substrates. Contact our Technical Department for specific requirements.

Moisture content

All substrates to be dry to touch i.e. maximum Protimeter reading 15% (WME). Preferably <12% (WME).

General substrate preparation

- All surfaces to be structurally sound
- All loose paint to be removed
- Surface contamination to be removed
- Remove defective finishes, and sand down
- Make good defects, holes, or depressions using proprietary repair compound
- Structural cracks to be filled

Wall coating type

Altro Zolatone Coating – pigmented particles suspended in a liquid solution.

Altro Zolatone

Available in a range of textures and colours (please refer to current Altro Zolatone sample cards).

Technical performance

Fire	BS476 Part 6+7	Class 0 (on non-combustible substrate)
Scratch resistance	BS3900 Part E2 + 5.3	
Impact resistance	BS3900 Part E3	
Scrub resistance	ASTM D-2486	

Application

Do not apply near foodstuffs or in unventilated conditions.

Do not apply in temperatures below 5°C or damp conditions.

Ideal application temperatures 13°C-25°C.

Apply suitable base coat.

The Altro Zolatone process requires two steps. The sheer step and the pattern step.

Always apply as per manufacturers instructions.

Storage

Store between 5°C and 25°C

Do not store below 5°C

Shelf life: 12 months

Protection

If required, Megafilm, Polythene Sheet, or Correx Sheet.

Protection not normally required, as the application should be as late in the contract as possible.

Specification

For particular applications contact Altro Walls for full written specification.

for further information or technical advice

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e-mail: walls@altro.com or explore www.altro.com




Altro hygienic wall and ceiling systems

AltroGuard™ Acryliccoat Plus

Data sheet

SEPTEMBER 2006

Product description

AltroGuard Acryliccoat is a very flexible and tough water-based acrylic emulsion which, when applied over AltroGuard Basecoat provides a flexible, high build coating system. The system allows for minor thermal and structural movement unlike conventional coatings and provides good resistance to light mechanical damage and chemical attack. The AltroGuard Acryliccoat Plus system can also be regularly scrubbed and cleaned. When cured, the surface has a matt appearance. Its microporous properties allows residual moisture in the substrate to escape without causing blistering or loss of adhesion. Also incorporated in the formulation is Altrosan, a biocide which provides a sterile surface throughout the lifetime of the product.

Easy to apply, the AltroGuard Acryliccoat Plus high-build system maximises protection with the added choice of pastel colours to co-ordinate with other finishes, and has a six year product warranty.

Features

- Water-based, single pack component
- Non-hazardous
- Low odour
- Quick drying
- Colour stable
- UV resistant
- Integral biocide
- Choice of pastel colours
- Minimum two top coats required
- Spray, roller or brush applied

Typical Areas of Use

The AltroGuard Acryliccoat Plus system can be used on all internal walls and ceilings, which are constructed from a range of common building materials. (See Substrate preparation for a guide).

Suitable for the following areas:-

- Bakeries
- Corridors (medium duty)
- Hot Areas (to a max. of 80°C)
- Laboratories (medium duty)
- Recovery Rooms
- Surgeries/First Aid Rooms
- Treatment Areas
- Kitchens (under 200 meals daily)
- Production Areas (light & medium duty)
- Class Rooms
- Dispensary
- Intensive Care
- Laundry Areas
- Sterile Areas
- Toilets
- Vending Stations
- Operating Theatres

Test Data

Fire rating:

BS 476 Part 7 (1987) surface spread of flame - Class 1
 BS 476 Part 6 (1989) fire propagation - Class 0*
 (*when applied to a non-combustible substrate)

Chemical Resistance: AltroGuard Acryliccoat is resistant to a wide range of chemicals including:

Diluted Household Bleach
 Decon 90 solution - 50%
 50% saline solution
 Cooking Oil, applied hot and cold
 10% Nitric Acid
 10% Sulphuric Acid
 10% Acetic Acid
 10% Hydrochloric Acid
 10% Phosphoric Acid
 10% Sodium Hydroxide
 10% Potassium Hydroxide

Please enquire with Altro for details of resistance to other specific chemicals.

Scratch Resistance - BS 3900 Part E2, Part 5.3:

AltroGuard Acryliccoat rated as 2.0kg.

U.V. Resistance: Acryliccoat (White) subjected to 500 hours in the Q.U.V. Product showed no change.

Impact Resistance - BS 3900 Part E3: Tested using a front impact onto the coated test surface, using an indentation depth of 5.0mm. No cracking or delamination was observed.

Water Vapour Transmission Rate ASTM E96,

Procedure B:

AltroGuard Basecoat	107.7g/m ² /24 hours
AltroGuard Acryliccoat	32.8g/m ² /24 hours

Tainting BS 5929 Part 3, 1984: Sensory evaluation was conducted on chocolate using the Triangle Test Method (TES-S-002), Odour Transfer.

No tainting was detected after a drying time of 72 hours.

Biological Testing: AltroGuard Acryliccoat was evaluated using a Zone of Inhibition test and gave positive inhibition to growth against the following organisms:-

Bacteria Aeromonas hydrophila, Bacillus cereus, Bacillus coagulans, Bacillus subtilis, Enterococcus faecalis, Enterococcus hirae, Escherichia coli, Klebsiella pneumoniae, Listeria monocytogenes, MRSA, Proteus vulgaris, Pseudomonas aeruginosa, Salmonella Enteritidis, Salmonella typhimurium, Staphylococcus aureus, Staphylococcus epidermis

Fungus Aspergillus niger

Yeasts Candida albicans, Saccharomyces cerevisiae

Tensile Strength and Elongation at Break: Tested to break both as an unsupported film and coated onto the lightweight glass fibre scrim. The following results were recorded:

Basecoat:

Extension at break	120% - reinforced 4.8%
Tensile Strength	1.5N/mm ² reinforced 11.2N/mm ²

Acryliccoat:

Extension at break	82% - reinforced 4.7%
Tensile Strength	2.9N/mm ² reinforced 11.5N/mm ²

Presence of toxic elements: AltroGuard Acryliccoat does not incorporate any toxic elements beyond some naturally occurring traces at insignificant levels. Analysis was conducted to investigate the possible presence of the following:- Phenol, Antimony, Arsenic, Copper, Lead, Mercury, Nickel and Zinc.

Scrub Resistance: Tested using a load of 0.5lbs.

AltroGuard Acryliccoat showed a loss of 0.0116g after 100 revolutions and 0.0165g after 200.

Preparation, Cleaning & Maintenance

Substrates must be smooth, sound, dry, clean and free of contamination. Use only recommended cleaning liquids, their equivalents or sterilisation solutions in the correct concentrations. Do not mix cleaning chemicals together, and always follow the manufacturer's instructions.

As part of substrate preparation and for routine cleaning of the AltroGuard system, a proprietary Biocide cleaner is recommended. Biocide cleaners can, if required, be applied by mechanical means, such as hand spray or a hot pressure washer.

a) Surface Preparation:

Follow manufacturers recommendations for dilution rates

to remove light or heavy soiling. The product should be left on the wall for a minimum of 5 minutes and should then be washed off very thoroughly with clean water and the surface allowed to dry, before commencing application of the AltroGuard coating system.

b) General Cleaning and Disinfection:

Follow manufacturers recommendations for regular cleaning and disinfection. Develop a regular cleaning programme suited to the usage and traffic of the area, or locations with rigorous hygiene requirements. A weekly cleaning programme is the minimum recommended.

Substrate Preparation

The table below is a guide to suitable substrates and the typical preparation and application routines required.

If in doubt, please consult Altro for further information and advice.

SUBSTRATE	PRE-TREATMENT	PRIMERS	BASE COAT	1st COAT	2nd COAT
Blockwork*	General Preparation	Primer seal	Basecoat	Acryliccoat	Acryliccoat
Bricks/Stone*	General Preparation	Primer seal	Basecoat	Acryliccoat	Acryliccoat
Cement Render*	General Preparation	Primer seal	Basecoat	Acryliccoat	Acryliccoat
Plasterboard*	General Preparation	Primer seal	Basecoat	Acryliccoat	Acryliccoat
Calcium silicate boards	General Preparation	Primer seal	Basecoat	Acryliccoat	Acryliccoat
Plaster*	General Preparation	Primer seal	Basecoat	Acryliccoat	Acryliccoat
Painted Surfaces	General Preparation	Not required	Basecoat	Acryliccoat	Acryliccoat
Ceramic Tiles	General Preparation RegROUT if required*	Tile Primer	Basecoat	Acryliccoat	Acryliccoat
Emulsion Surfaces	General Preparation	Not required	Basecoat	Acryliccoat	Acryliccoat
Plastics	Abrade	Not required	Basecoat	Acryliccoat	Acryliccoat
Metal (non-ferrous)	Wire Brush	Proprietary Metal Primer	Basecoat	Acryliccoat	Acryliccoat
Metal (ferrous)	General Preparation	Proprietary Metal Primer	Basecoat	Acryliccoat	Acryliccoat
Plastics i.e. pvc, Polyurethane	Abrade	Not required	Basecoat	Acryliccoat	Acryliccoat
Wood*	Lightly sand	Proprietary Timber Primer (inc knots)	Basecoat	Acryliccoat	Acryliccoat

* Substrate should be dry i.e. maximum protimeter reading of 15% (WME) preferably <12%
* A glass fibre reinforcement lightweight scrim can be incorporated into the Acryliccoat Plus system if required
Note: Refer to typical coverage rates overleaf.

General Preparation: Remove loose flakes, heavy oil or grease by scraping. On suitable substrates, wash with a Biocide cleaner or a proprietary solvent or detergent based product to remove all traces of contamination. Non-porous substrates may be cleaned using high-pressure steam cleaners.

Mould growth should be treated with a Biocide cleaner and any presence of algae should be treated with a dilution of bleach and allowed to dry.

Cracks not liable to movement should be filled with acrylic or polymer/cement based filler.

Cracks subject to movement should be filled with a proprietry paintable flexible acrylic compound.

For hygienic areas and for other areas in general, it is advisable to use an over paintable, permanently flexible, waterbased acrylic sealant, which provides an effective seal between materials where slight movement may occur. This should be used against all rigid abutments, such as ceilings, door frames, windows etc:.

Completion: Altro Silicone sealant, available in matching colours (Ref: A802/803) should be applied to all abutments once the AltroGuard coating system has fully dried, depending on the project requirements.

AltroGuard Primer seal: Apply a coat of AltroGuard Primer seal by brush, roller or spray.

Additional coats may be required wet on wet on porous or very dusty plaster or concrete/render. Surface integrity should be assessed before applying any coats of AltroGuard Basecoat.

AltroGuard Tile Primer: Apply one coat of AltroGuard two-part Tile Primer by brush or roller, and allow to cure.

Base and Top Coats: Apply one or more coats of AltroGuard Basecoat followed by a minimum of two coats of AltroGuard Acryliccoat, allowing a touch dry tack-free surface (usually within four hours) between coats, by brush, roller or spray.

Scrim: A reinforcement lightweight scrim may be introduced into the AltroGuard Basecoat to resist impact damage or scuffing.

Volume solids content

AltroGuard Acryliccoat Plus is approximately 38% by volume.

Application Equipment

Spraying: Most types of industrial airless spray equipment are suitable, pressure 176-211 kg/cm²-2500-3000psi, tip size 11-19 thou. Apply using even coats when a smooth finish is required. Use protective equipment when spraying.

Brushes: Use soft nylon or bristle paintbrushes, overcoating 90 degrees to first coat.

Rollers: Use short pile mohair or sheepskin rollers for coating or reinforcing matting.

Cleaning: Clean brushes, rollers and spray equipment with clean water. Dried material can be removed by paint stripper or cellulose thinners.

Typical coverage rates (usage)

AltroGuard Basecoat 4-8 m²/litre
AltroGuard Acryliccoat 7-10 m²/litre
AltroGuard Primer seal 15-20 m²/litre
AltroGuard Tile Primer 5-6 m²/kg

Coverage is calculated on a smooth substrate and may vary depending upon equipment used, porosity, texture and colour of substrate.

Note: AltroGuard Acryliccoat Plus must be applied to a minimum dry fill thickness of 180-200 microns. Brush and roller applications may require several coats to build up the film thickness.

Drying Times

Under normal circumstances, individual components are usually touch dry and tack free within four hours and may be overcoated on the same day. Low temperatures and high relative humidity will extend drying times.

Maintenance

Wash down periodically, or to a planned programme as required, with a Biocide cleaner, or a suitable proprietary cleaning agent (always follow the manufacturers' instructions). A Biocide cleaner eliminates the possibility of build up of micro-organisms on the surface, making it particularly suitable when a hygienic surface is required.

Cured installations may be pressure cleaned ensuring that water temperature and pressure does not exceed 60°C/100bar. Care should be taken to keep the nozzle a minimum of 600mm (approx. 2ft) from the surface.

Product Sizes

AltroGuard Basecoat 10 and 25 litres
AltroGuard Acryliccoat 10 and 25 litres
AltroGuard Primer seal 1 and 5 litres
AltroGuard Tile Primer 1 kilogram
AltroGuard Lightweight Scrim 50m x 1m roll

Colours

Available in white and eleven standard colours to co-ordinate with the Altro Whiterock Extruded and Pastels range. Other RAL or BS standard colours may be available to minimum order quantities. Please enquire with Altro.

Notes

AltroGuard Systems are not suitable for use in showers or wash bays where the wall is consistently exposed to warm water.

Do not install near foodstuffs in unventilated conditions. Always ensure adequate ventilation.

Do not apply in damp conditions or at a temperature below 5°C.

In conditions of high humidity or fluctuating temperatures, the dew point of the surface may be higher than 5°C.

Ensure the ambient and surface temperature is above the dew point before application.

Recommended ambient temperature of 13-25°C for all application areas.

Applied uncured materials should be protected from frost.

Health & Safety

Safety Data Sheet available on request from Altro Walls, on 01502 561364.

for further information or technical advice
tel: 01502 561364 fax: 01502 531461
e-mail walls@altro.com or explore www.altro.com



altro

CI/StB reference
(43) T (U47)

September 2006

M60 Painting/Clear Finishing AltroGuard™ Acryliccoat Plus Specification

SEPTEMBER 2006



Background

- Painted Surfaces
- Brick/Stone
- Blockwork
- Cementitious Renders
- Plasterboard
- Plaster
- Metal
- Glazed Ceramic Tile
- Plastic (not polypropylene or polyethylene)
- Wood

Note

1. A range of preparation products are available and consideration should be given to whether substrates are:
 - a) Previously decorated
 - b) Primed or sealed
 - c) Uncoated or new material
 - d) Type of material
 - e) A sterilisation requirement

Refer to AltroGuard System Selection & Substrate Guide, also check NBS clauses 400 to 652, which cover the majority of preparation work.

Moisture content

All substrates to be dry to touch i.e. maximum Protimeter reading 15% (WME), preferably <12% (WME).

Application temperature

Minimum application temperature 5°C.

In conditions of high humidity or fluctuating temperatures, the dew point of the surface may be higher than 5°C.

Ensure the ambient and surface temperature is above the dew point before application.

Recommended ambient temperature of 13-25°C for all application areas.

General substrate preparation

- All surfaces to be structurally sound
- All loose paint to be removed
- Surface contamination to be removed
- Remove defective finishes, and sand down
- Make good defects, holes, or depressions using proprietary repair compound
- Structural cracks should be filled

Wall coating type

AltroGuard Primer seal - Fine particle Acrylic Emulsion

AltroGuard Basecoat - Modified Acrylic Emulsion

AltroGuard Acryliccoat - Modified Acrylic Emulsion

Manufacturer:

Altro Walls
48 Pinbush Road
South Lowestoft Industrial Estate
Lowestoft, Suffolk NR33 7NL
Tel: 01502 561364 Fax: 01502 531461

AltroGuard Basecoat

Reference	Colour
AGB01	White

AltroGuard Acryliccoat

AGAC/O1	White
AGAC/41	Linen
AGAC/43	Seafoam
AGAC/44	Ice
AGAC/45	Dove
AGAC/46	Barley
AGAC/47	Sunrise
AGAC/48	Carnation
AGAC/49	Sky
AGAC/50	Zest
AGAC/51	Heather
AGAC/52	Mink

A range of pastel colours (to BS4800 and RAL) are available to special order.

Fire rating

BS 476 Part 7 (1987) surface spread of flame - Class 1

BS 476 Part 6 (1989) fire propagation - Class 0*

(*when applied to a non-combustible substrate)

Certificate available on request.

Application

- Do not apply near foodstuffs or in unventilated conditions
- Do not apply in temperatures below 5°C or damp conditions
- Ideal application temperature 13-25°C.
- Stir thoroughly before use
- Overcoating to take place once each coat is touch dry and tack-free. Usually within four hours
- To untreated porous or dusty surfaces, apply one or more coats of AltroGuard Primer seal, until rejection
- Apply a minimum of one coat of Basecoat
- Apply a minimum of two coats of Acryliccoat
- Apply by:
 1. Airless spray
 2. Brush
 3. Roller
- Use in accordance with manufacturers instructions
- AltroGuard Acryliccoat Plus must be applied to a minimum dry film thickness of 180-200 microns
- Note: Brush or roller application may require several coats to achieve film thickness

Typical coverage rates (usage)

AltroGuard Primer seal	15-20m ² /litre
AltroGuard Basecoat	4-8m ² /litre
AltroGuard Acryliccoat	7-10m ² /litre(per coat)
AltroGuard Tile Primer	5-6m ² /kg

Storage

- Store between 5°C and 25°C
- Do not store below 5°C or allow to freeze
- Shelf life; 12 Months

Protection

- If required, Megafilm, Polythene sheet, Correx, Cardboard
- Protection not normally necessary as the application of the wall covering should be as late in the contract as possible

Specification

For particular applications contact Altro Walls for full written specification.

Model specification clauses

M60 Painting/Clear Finishing

111A Performance Coating...

- Manufacturer and reference: AltroGuard Acryliccoat Plus high performance coating system by Altro Walls, Lowestoft, Suffolk, NR33 7NL. Tel: 01502 561364 Fax: 01502 531461 www.altro.com
- Surface(s)...
- Preparation: Surfaces to be sound, dry, clean and free of dirt or other contamination
- Initial coat(s): AltroGuard Primer seal applied to rejection (Ref: AGCPNF)
- Intermediate coat(s): AltroGuard Basecoat applied at 4-8m²/litre (Ref: AGB01)
- Finishing coat(s): Minimum two coats of AltroGuard Acryliccoat Plus applied at 7-10m²/litre (Ref: AGAC01NF/*) *Denotes colour choice

for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail walls@altro.com or explore www.altro.com




Altro hygienic wall and ceiling systems

AltroGuard™ Polyucoat Plus

Data sheet

SEPTEMBER 2006

Product description

AltroGuard Polyucoat is a very flexible and tough water-based polyurethane emulsion which, when applied over AltroGuard Basecoat provides a flexible, high build coating system that allows for minor thermal and structural movement unlike conventional coatings. When cured, the surface has a hard matt finish, with very good resistance to light mechanical damage or chemical attack. It can also be regularly scrubbed and cleaned, particularly in harsh areas. Its microporous properties allows residual moisture in the substrate to escape without causing blistering or loss of adhesion. An integral biocide, Altrosan, provides a sterile surface throughout the lifetime of the product. Easy to apply, the high-build AltroGuard Polyucoat Plus system maximises protection with the added choice of pastel colours to co-ordinate with other finishes, and has a six year product warranty.

Features

- Water-based, single pack component
- Non-hazardous
- Low odour
- Quick drying
- Colour stable
- UV resistant
- Integral biocide
- Choice of pastel colours
- Minimum two top coats required
- Spray, roller or brush applied

Typical Areas of Use

The AltroGuard Polyucoat Plus system can be used on all internal walls and ceilings, which are constructed from a range of common building materials. (See Substrate Preparation for a guide). Suitable for the following areas:-

- Abattoirs, Agricultural
- Breweries
- Corridors (heavy duty*)
- Operating Theatres
- Laboratories (heavy duty*)
- Prisons
- Veterinary Surgeries
- Storage Areas
- A&E Departments, Bakeries
- Toilets
- Coldstores (down to a min. of -50°C)
- Hot areas (to a max. of 80°C)
- Kitchens (over 200 meals daily)
- Production Areas (heavy duty*)
- Mortuaries/Funeral Parlours

*Where impact is likely, Altro recommends the use of suitable protection bars.

Test Data

Fire rating:

BS 476 Part 7 (1987) surface spread of flame - Class 1
BS 476 Part 6 (1989) fire propagation - Class 0*
(*when applied to a non-combustible substrate)

Chemical Resistance:

AltroGuard Polyucoat Plus is resistant to a wide range of chemicals including:
Diluted Household Bleach
Decon 90 solution - 50%
50% saline solution
Cooking Oil, applied hot and cold
10% Nitric Acid
10% Sulphuric Acid
10% Acetic Acid
10% Hydrochloric Acid
10% Phosphoric Acid
10% Sodium Hydroxide
10% Potassium Hydroxide
Please enquire for details of resistance to other specific chemicals.

Scratch Resistance - BS 3900 Part E2, Part 5.3:

Polyucoat Plus is rated as 2.9kg.

U.V. Resistance: Polyucoat (White) subjected to 500 hours in the Q.U.V. Product showed no change.

Impact Resistance - BS 3900 Part E3: Tested using a front impact onto the coated test surface, using an indentation depth of 5.0mm. No cracking or delamination was observed.

Water Vapour Transmission Rate ASTM E96,

Procedure B:

AltroGuard Basecoat	107.7g/m ² /24 hours
AltroGuard Polyucoat	42.9g/m ² /24 hours

Tainting BS 5929 Part 3, 1984: Sensory evaluation was conducted on chocolate using the Triangle Test Method (TES-S-002, Odour Transfer).

No tainting was detected after a drying time of 48 hours.

Biological Testing: AltroGuard Polyucoat was evaluated using a Zone of Inhibition test and gave positive inhibition to growth against the following organisms:-

Bacteria Aeromonas hydrophila, Bacillus cereus, Bacillus coagulans, Bacillus subtilis, Enterococcus faecalis, Enterococcus hirae, Escherichia coli, Klebsiella pneumoniae, Listeria monocytogenes, MRSA, Proteus vulgaris, Pseudomonas aeruginosa, Salmonella Enteritidis, Salmonella typhimurium, Staphylococcus aureus, Staphylococcus epidermis

Fungus Aspergillus niger

Yeasts Candida albicans, Saccharomyces cerevisiae

Tensile Strength and Elongation at Break: Tested to break both as an unsupported film and coated onto the lightweight glass fibre scrim. The following results were recorded:

Basecoat:

Extension at break	120% - reinforced 4.8%
Tensile Strength	1.5N/mm ² reinforced 11.2N/mm ²

Polyucoat:

Extension at break	68% reinforced 4.8%
Extension at break	aged 32%
Tensile Strength	7.5N/mm ² reinforced 12.0N/mm ²
Tensile Strength	aged 9.4N/mm ² reinforced 12.0N/mm ²

Presence of toxic elements: AltroGuard Polyucoat Plus does not incorporate any toxic elements beyond some naturally occurring traces at insignificant levels. Analysis was conducted to investigate the possible presence of the following:- Phenol, Antimony, Arsenic, Copper, Lead, Mercury, Nickel and Zinc.

Scrub Resistance:

Tested using a load of 0.5lbs. AltroGuard Polyucoat showed a loss of 0.0083g after 100 revolutions and 0.0088g after 200.

Preparation, Cleaning & Maintenance

Substrates must be smooth, sound, dry, clean and free of contamination. Use only recommended cleaning liquids, their equivalents or sterilisation solutions in the correct concentrations. Do not mix cleaning chemicals together, and always follow the manufacturer's instructions.

As part of substrate preparation and for routine cleaning of the AltroGuard system, a proprietary Biocide cleaner is recommended. Biocide cleaners can, if required, be applied by mechanical means, such as hand spray or a

hot pressure washer.

a) Surface Preparation:

Follow manufacturers recommendations for dilution rates

to remove light or heavy soiling. The product should be left on the wall for a minimum of 5 minutes and should then be washed off very thoroughly with clean water and the surface allowed to dry, before commencing application of the AltroGuard coating system.

b) General Cleaning and Disinfection:

Follow manufacturers recommendations for regular cleaning and disinfection. Develop a regular cleaning programme suited to the usage and traffic of the area, or locations with rigorous hygiene requirements. A weekly cleaning programme is the minimum recommended.

Substrate Preparation

The table below is a guide to suitable substrates and the typical preparation and application routines required.

If in doubt, please consult Altro for further information and advice.

SUBSTRATE	PRE-TREATMENT	PRIMERS	BASE COAT	1st COAT	2nd COAT
Blockwork*	General Preparation	Primer seal	Basecoat	Polyucoat	Polyucoat
Bricks/Stone*	General Preparation	Primer seal	Basecoat	Polyucoat	Polyucoat
Cement Render*	General Preparation	Primer seal	Basecoat	Polyucoat	Polyucoat
Plasterboard*	Tape/level joints	Primer seal	Basecoat	Polyucoat	Polyucoat
Calcium silicate boards	General Preparation	Primer seal	Basecoat	Polyucoat	Polyucoat
Plaster*	General Preparation	Primer seal	Basecoat	Polyucoat	Polyucoat
Painted Surfaces	General Preparation	Not required	Basecoat	Polyucoat	Polyucoat
Ceramic Tiles	General Preparation RegROUT if required*	Tile Primer	Basecoat	Polyucoat	Polyucoat
Emulsion Surfaces	General Preparation	Not required	Basecoat	Polyucoat	Polyucoat
Plastics	Abrade	Not required	Basecoat	Polyucoat	Polyucoat
Metal (non-ferrous)	Wire Brush	Proprietary metal primer	Basecoat	Polyucoat	Polyucoat
Metal (ferrous)	General Preparation	Proprietary metal primer	Basecoat	Polyucoat	Polyucoat
Plastics i.e. pvc, Polyurethane	Abrade	Not required	Basecoat	Polyucoat	Polyucoat
Wood*	Lightly sand	Proprietary timber primer (inc knots)	Basecoat	Polyucoat	Polyucoat

* Substrate should be dry i.e. Maximum protimeter reading of 15% (WME) preferably <12%
* A glass fibre reinforcement lightweight scrim can be incorporated into the Polyucoat Plus system if required
Note: Refer to typical coverage rates overleaf.

General Preparation: Remove loose flakes, heavy oil or grease by scraping. On suitable substrates, wash with a Biocide cleaner, or a proprietary solvent or detergent based product to remove all traces of contamination. Non-porous substrates may be cleaned using high-pressure steam cleaners.

Mould growth should be treated with a Biocide cleaner and any presence of algae should be treated with a dilution of bleach and allowed to dry.

Cracks not liable to movement should be filled with acrylic or polymer/cement based filler.

Cracks subject to movement should be filled with a proprietry paintable flexible acrylic compound.

For hygienic areas and for other areas in general, it is advisable to use an over paintable, permanently flexible, waterbased acrylic sealant, which provides an effective seal between materials where slight movement may occur. This should be used against all rigid abutments, such as ceilings, door frames, windows etc:.

Completion: Altro Silicone sealant, available in matching colours (Ref: A802/803) should be applied to all abutments once the AltroGuard coating system has fully dried, depending on the project requirements.

AltroGuard Primer seal: Apply a coat of AltroGuard Primer seal by brush, roller or spray.

Additional coats may be required wet on wet on porous or very dusty plaster or concrete/render. Surface integrity should be assessed before applying any coats of AltroGuard Basecoat.

AltroGuard Tile Primer: Apply one coat of AltroGuard two-part Tile Primer by brush or roller, and allow to cure.

Base and Top Coats: Apply one or more coats of AltroGuard Basecoat followed by a minimum of two coats of AltroGuard Polyucoat, allowing a touch dry tack-free surface (usually within four hours) between coats, by brush, roller or spray.

Scrim: A reinforcement lightweight scrim may be introduced into the AltroGuard Basecoat to resist impact damage or scuffing.

Volume solids content

AltroGuard Polyucoat Plus is approximately 38% by volume.

Application Equipment

Spraying: Most types of industrial airless spray equipment are suitable, pressure 176-211 kg/cm²-2500-3000psi, tip size 11-19 thou. Apply using even coats when a smooth finish is required. Use protective equipment when spraying.

Brushes: Use soft nylon or bristle paintbrushes, overcoating 90 degrees to first coat.

Rollers: Use short pile mohair or sheepskin rollers for coating or reinforcing matting.

Cleaning: Clean brushes, rollers and spray equipment with clean water. Dried material can be removed by paint stripper or cellulose thinners.

Typical coverage rates (usage)

AltroGuard Basecoat 4-8 m²/litre
AltroGuard Polyucoat 7-10 m²/litre
AltroGuard Primer seal 15-20 m²/litre
AltroGuard Tile Primer 5-6 m²/per kg

Coverage is calculated on a smooth substrate and may vary depending upon equipment used, porosity, texture and colour of substrate.

Note: AltroGuard Polyucoat Plus must be applied to a minimum dry fill thickness of 180-200 microns. Brush and roller applications may require several coats to build up the film thickness.

Drying Times

Under normal circumstances, individual components are usually touch dry and tack free within four hours and may be overcoated on the same day. Low temperatures and high relative humidity will extend drying times.

Maintenance

Wash down periodically, or to a planned programme as required, with a Biocide cleaner, or a suitable proprietary cleaning agent (always follow the manufacturers’ instructions). A Biocide cleaner eliminates the possibility of build up of micro-organisms on the surface, making it particularly suitable when a hygienic surface is required.

Cured installations may be pressure cleaned ensuring that water temperature and pressure does not exceed 60°C/100bar. Care should be taken to keep the nozzle a minimum of 600mm (approx. 2ft) from the surface.

Product Sizes

AltroGuard Basecoat 10 and 25 litres
AltroGuard Polyucoat 10 and 25 litres
AltroGuard Primer seal 1 and 5 litres
AltroGuard Tile Primer 1 kilogram
AltroGuard Lightweight Scrim 50m x 1m roll

Colours

Available in white and eleven standard colours to co-ordinate with the Altro Whiterock Extruded and Pastels range. Other RAL or BS standard colours may be available to minimum order quantities. Please enquire with Altro.

Notes

AltroGuard Systems are not suitable for use in showers or wash bays where the wall is consistently exposed to warm water.

Do not install near foodstuffs in unventilated conditions. Always ensure adequate ventilation.

Do not apply in damp conditions or at a temperature below 5°C.

In conditions of high humidity or fluctuating temperatures, the dew point of the surface may be higher than 5°C.

Ensure the ambient and surface temperature is above the dew point before application.

Recommended ambient temperature of 13-25°C for all application areas.

Applied uncured materials should be protected from frost.

Health & Safety

Safety Data Sheet available on request from Altro Walls, on 01502 561364.

for further information or technical advice
tel: 01502 561364 fax: 01502 531461
e-mail walls@altro.com or explore www.altro.com




M60 Painting/Clear Finishing AltroGuard™ Polyucoat Plus Specification

SEPTEMBER 2006

Background

- Painted Surfaces
- Brick/Stone
- Blockwork
- Cementitious Renders
- Plasterboard
- Plaster
- Metal
- Glazed Ceramic Tile
- Plastic (not polypropylene or polyethylene)
- Wood

Note

1. A range of preparation products are available and consideration should be given to whether substrates are:
 - a) Previously decorated
 - b) Primed or sealed
 - c) Uncoated or new material
 - d) Type of material
 - e) A sterilisation requirement

Refer to AltroGuard System Selection & Substrate Guide, also check NBS clauses 400 to 652, which cover the majority of preparation work.

Moisture content

All substrates to be dry to touch i.e. maximum Protimeter reading 15% (WME), preferably <12% (WME).

Application temperature

Minimum application temperature 5°C.

In conditions of high humidity or fluctuating temperatures, the dew point of the surface may be higher than 5°C.

Ensure the ambient and surface temperature is above the dew point before application.

Recommended ambient temperature of 13-25°C for all application areas.

General substrate preparation

- All surfaces to be structurally sound
- All loose paint to be removed
- Surface contamination to be removed
- Remove defective finishes, and sand down
- Make good defects, holes, or depressions using proprietary repair compound
- Structural cracks should be filled

Wall coating type

AltroGuard Primer seal - Fine particle Acrylic Emulsion

AltroGuard Basecoat - Modified Acrylic Emulsion

AltroGuard Polyucoat - Modified Polyurethane Emulsion

Manufacturer:

Altro Walls
48 Pinbush Road
South Lowestoft Industrial Estate
Lowestoft, Suffolk NR33 7NL
Tel: 01502 561364 Fax: 01502 531461

AltroGuard Basecoat

Reference	Colour
AGBO1	White

AltroGuard Polyucoat

AGPU/O1	White
AGPU/41	Linen
AGPU/43	Seafoam
AGPU/44	Ice
AGPU/45	Dove
AGPU/46	Barley
AGPU/47	Sunrise
AGPU/48	Carnation
AGPU/49	Sky
AGPU/50	Zest
AGPU/51	Heather
AGPU/52	Mink

A range of pastel colours (to BS4800 and RAL) are available to special order.

Fire rating

BS 476 Part 7 (1987) surface spread of flame - Class 1

BS 476 Part 6 (1989) fire propagation - Class 0*

(*when applied to a non-combustible substrate)

Certificate available on request.

Application

- Do not apply near foodstuffs or in unventilated conditions
- Do not apply in temperatures below 5°C or damp conditions
- Ideal application temperature 13-25°C
- Stir thoroughly before use
- Overcoating to take place once each coat is touch dry and tack-free. Usually within four hours
- To untreated porous or dusty surfaces, apply one or more coats of AltroGuard Primer seal, until rejection
- Apply a minimum of one coat of Basecoat
- Apply a minimum of two coats of Polyucoat
- Apply by:
 1. Airless spray
 2. Brush
 3. Roller
- Use in accordance with manufacturers instructions
- AltroGuard Polyucoat Plus must be applied to a minimum dry film thickness of 180-200 microns
- Note: Brush or roller application may require several coats to achieve film thickness

Typical coverage rates (usage)

AltroGuard Primer seal	15-20m ² /litre
AltroGuard Basecoat	4-8m ² /litre
AltroGuard Polyucoat	7-10m ² /litre(per coat)
AltroGuard Tile Primer	5-6m ² /per kg

Storage

- Store between 5°C and 25°C
- Do not store below 5°C or allow to freeze
- Shelf life; 12 Months

Protection

- If required, Megafilm, Polythene sheet, Correx, Cardboard
- Protection not normally necessary as the application of the wall covering should be as late in the contract as possible

Specification

For particular applications contact Altro Walls for full written specification.

Model specification clauses

M60 Painting/Clear Finishing

111A Performance Coating...

- Manufacturer and reference: AltroGuard Polyucoat Plus high performance coating system by Altro Walls, Lowestoft, Suffolk, NR33 7NL. Tel: 01502 561364 Fax: 01502 531461 www.altro.com
- Surface(s)...
- Preparation: Surfaces to be sound, dry, clean and free of dirt or other contamination
- Initial coat(s): AltroGuard Primer seal applied to rejection (Ref: AGCPNF)
- Intermediate coat(s): AltroGuard Basecoat applied at 4-8m²/litre. (Ref: AGB01)
- Finishing coat(s): Minimum two coats of AltroGuard Polyucoat Plus applied at 7-10m²/litre (Ref: AGPU01NF/*) *Denotes colour choice

for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail walls@altro.com or explore www.altro.com



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September 2006

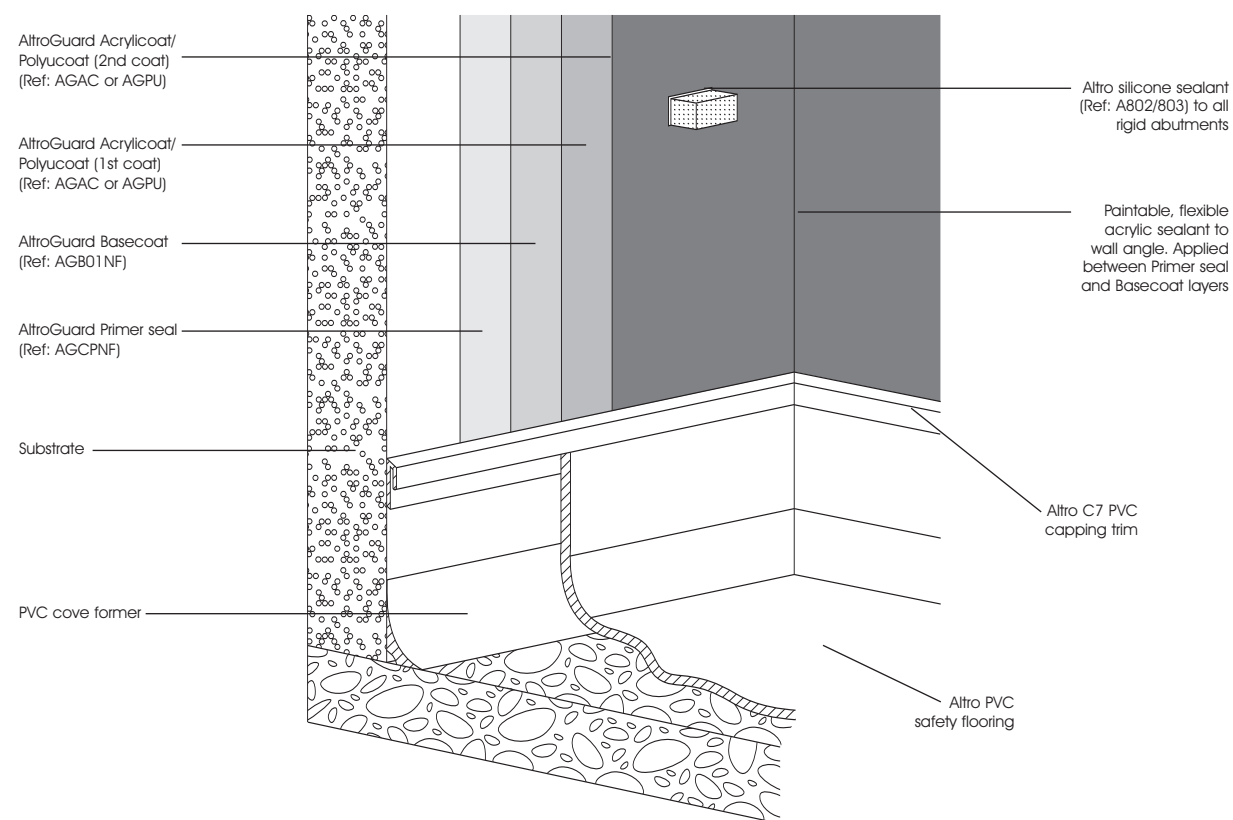
Altro hygienic wall and ceiling systems AltroGuard coating systems typical specification (Ref: AG1)

SEPTEMBER 2006

AltroGuard hygienic coating system applied to a smooth, sound, dry and clean substrate to a minimum 180 - 200 microns dry film thickness. Applications by brush, roller or airless spraying techniques. To untreated or porous surfaces, apply AltroGuard Primer seal to rejection and allow to dry. Apply a minimum one coat of AltroGuard Basecoat and allow to dry. Apply minimum of two top coats of Acryliccoat/Polyucoat and allow to dry.

To areas where slight movement is likely to occur (angles, abutments etc) apply a paintable, flexible acrylic sealant between the Primer seal and Basecoat layers and allow to dry. On completion, when coating has dried, apply matching colour Altro silicone sealant (Ref: A802/803) to all rigid abutments.

Note: Brush or roller application may require several coats to achieve film thickness.



for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail walls@altro.com or explore www.altro.com



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September 2006

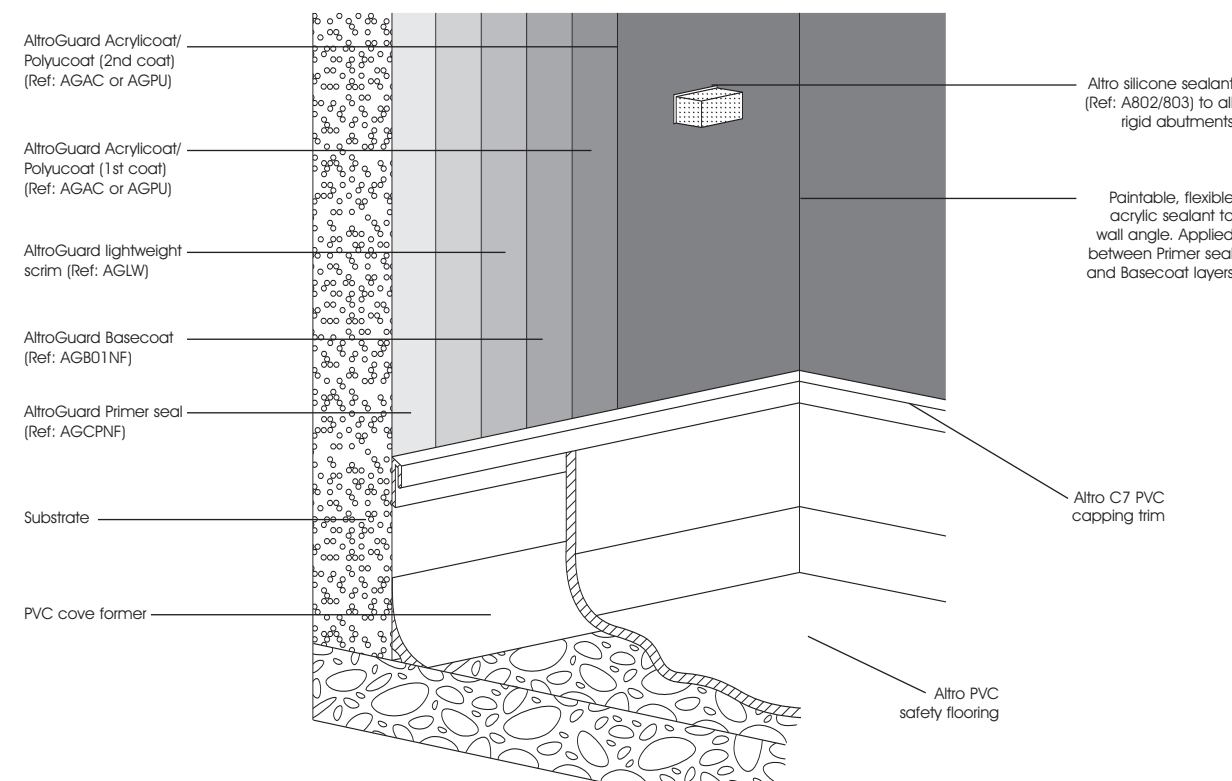
Altro hygienic wall and ceiling systems AltroGuard coating systems typical specification (Ref: AG2)

SEPTEMBER 2006

AltroGuard hygienic coating system applied to a smooth, sound, dry and clean substrate to a minimum 230 - 250 microns dry film thickness. Applications by brush, roller or airless spraying techniques. To untreated or porous surfaces, apply AltroGuard primer seal to rejection and allow to dry. Apply one coat of AltroGuard Basecoat and while wet, apply AltroGuard lightweight scrim with dry short pile roller, into the wet coating, allowing for overlap at ceiling and floor. Trim off with sharp knife and allow to dry overnight.

Once dry, apply a further coat of Basecoat and allow to dry and be tack-free. Apply a minimum of two top coats of Acryliccoat/Polyucoat and allow to dry. To areas where slight movement is likely to occur (angles, abutments etc) apply a paintable, flexible acrylic sealant between the Primer seal and Basecoat layers and allow to dry. On completion, when coating has dried, apply matching colour Altro silicone sealant (Ref: A802/803) to all rigid abutments.

Note: Brush or roller application may require several coats to achieve film thickness.



for further information or technical advice

tel: 01502 561364 fax: 01502 531461

e-mail walls@altro.com or explore www.altro.com

Wall coating systems / recommended cleaning methods

SEPTEMBER 2006

AltroGuard™ systems

Routine cleaning

Wash down periodically, or to a planned programme as required, with a Bioclean cleaner, or a proprietary cleaning agent (test suitability first). Altro recommend a Bioclean cleaner which contains an integral biocide and eliminates the possibility of build up of micro organisms on the surface,

making it particularly suitable when a hygienic surface is required.
To use: dilute with clean water (as required).
Apply, and then wash off thoroughly with clean water.

Sterilisation and heavy or stubborn stains

1. Sterilisation solutions (supplied by others) may be used following the manufacturers recommended instructions.

2. Clean heavily soiled areas with AltroClean 44 cleaner or equivalent alkaline cleaner. Follow recommended instructions.

Pressure cleaning

Cured AltroGuard may be pressure cleaned ensuring that water temperature/pressure does not exceed 60°C/100 Bar. Care should be taken to

maintain the nozzle a minimum of 600mm (approx. 2 feet) from the surface.

Failure to maintain AltroGuard systems in accordance with recommended procedure can affect the performance of the product. Further information is available from Altro Walls. Please ensure you have the Health and Safety Data sheet for any cleaner you intend to use. In the event of any queries our Technical Services Department will be pleased to advise you.

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Tips for successful maintenance of AltroGuard wall coating systems

1. **Develop a regular cleaning programme suited to the usage and traffic of the area** – heavily trafficked or highly visible areas, or locations with rigorous hygiene requirements, need to be cleaned more often than areas which are seldom used, or where appearance is less important. A weekly cleaning programme is the minimum recommended.
2. **Use recommended cleaning chemicals** – use only recommended cleaning liquids, their equivalents or sterilising solutions in the correct concentration. Do not mix cleaning chemicals together, and always follow the manufacturer's instructions.
3. **Remove scuff marks and heavy soiling regularly** – marks and soiling should be removed more often than the maintenance programme, e.g. daily. Never use abrasive pads or cleaners.
4. **Hot water lances can cause damage** - use with care and never with the nozzle closer than 600mm or above maximum temperature recommendations.

High quality cleaning chemicals ensure efficient maintenance and represent only a small proportion of maintenance costs. The following suppliers offer excellent products:

Cleaning agents and polishes

AltroGuard Bioclean is available from:

Altro Tel: 01502 561364; Fax: 01502 531461;
E-mail: walls@altro.com

The following companies stock proprietary cleaning agents. Always check their suitability before use and follow the manufacturers' instructions:

British Nova Works Ltd Tel: 0208 574 6531;
Fax: 0208 571 7572

CSA Tel: 01954 251573; Fax: 01954 251 931;
E-mail: csaeagle@fsbdial.co.uk

Diversey Lever Ltd Tel: 01604 405311;
Fax: 01604 406809

Hako Clean Midlands Tel: 01788 823535;
Fax: 01788 823969; E-mail: sales@hako.co.uk

Premier Products Tel: 01242 243421;
Fax: 01242 528445;
E-mail: premier@premierproducts.co.uk

Prochem Europe Ltd Tel: 0208 974 1515;
Fax: 0208 974 1511; E-mail: sales@prochem.co.uk

SC Johnson Tel: 01276 63456; Fax: 01276 852308

3M PLC Tel: 0161 236 8500; Fax: 0161 237 6136

For cleaning advice contact Altro on:
tel: 01502 561364 fax: 01502 531461 or
e-mail: walls@altro.com

explore www.altro.com

Altro Walls (a division of Altro Limited), 48 Pinbush Road, South Lowestoft Industrial Estate, Lowestoft, Suffolk NR33 7NL
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PRODUCT WARRANTY /

explore **altroism** at www.altro.com

Altro Zolatone™

Altro Zolatone

6 Year Product Warranty

Altro Ltd., t/a Altro WALLS ('Altro') warrants that, in the event of Altro Zolatone requiring replacement due to a defect in the product within 6 years from the date of application, anywhere within the UK, the defective product will be replaced free of charge provided that:

- it has been applied and maintained according to specification and the relevant Altro product data sheet, and
- it has been subjected to only normal wear and to no physical or chemical abuse and
- the registration form has been returned/ submitted to Altro fully completed within three months of installation.

This Warranty does not extend to marking from burning agents, staining of the surface of the material or failure of or damage to the material due to circumstances beyond the control of Altro, including failure due to excessive moisture, vapour pressure or alkaline reactions, structural movement or substrate deterioration of the wall and spillages of chemicals to which the Altro Zolatone has no or limited resistance.

- Any claim made under this Warranty shall be investigated by Altro.
- The liability of Altro is limited to supplying, free of charge, sufficient material to replace that found to be defective.
- All purchases of Altro Zolatone are subject to the Terms and Conditions of Sale of Altro as amended by the terms of this Warranty.
- Nothing in this Warranty affects your statutory rights as a customer.

Register online

visit **www.altro.com**

Enter the services section, click on warranty registration and complete the on-line warranty form.



Altro Zolatone

6 Year Product Warranty

Installation Site: _____

Address: _____

Area Type: _____

Installed by: _____

Date of Purchase: _____

Date of Installation _____

Batch No. and Quantity: _____ m²

Customer Name: _____

Address: _____

Tel: _____

To be completed by Altro

Customer No: _____

Warranted Contract No: _____

Signed (for Altro) _____

Name: _____

Position: _____



Complete overleaf and fax to: **01462 707515**
or place in an envelope and post to:
**Altro Walls, 48 Pinbush Road, South Lowestoft Industrial Estate,
Lowestoft, Suffolk NR33 1BR**

Altro Walls, A division of Altro Limited, 48 Pinbush Road,
South Lowestoft Industrial Estate, Lowestoft, Suffolk NR33 7NL.
Telephone: 01502 561364 Fax: 01502 588848 E-mail: walls@altro.com

Register online
visit www.altro.com

Enter the services section, click on warranty registration and
complete the on-line warranty form.

explore **altroism** at www.altro.com



PRODUCT WARRANTY /

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AltroGuard™

AltroGuard

6 Year Product Warranty

Altro trading as Altro Walls ('Altro') warrants that, in the event of an AltroGuard system requiring replacement due to a defect in the product within 6 years from the date of application, anywhere within the UK, the defective product will be replaced free of charge provided that:

- it has been fitted and maintained according to specification and the relevant Altro product data sheet, and
- it has been subjected to only normal wear and to no physical or chemical abuse and
- the registration form has been returned/submitted to Altro fully completed within three months of installation.

This Warranty does not extend to marking from burning agents, staining of the surface of the material or failure of or damage to the material due to circumstances beyond the control of Altro, including failure due to excessive moisture, vapour pressure or alkaline reactions, structural movement or substrate deterioration of the wall and spillages of chemicals to which the AltroGuard system has no or limited resistance.

- Any claim made under this Warranty shall be investigated by Altro.
- Altro's liability is limited to supplying, free of charge, sufficient material to replace that found to be defective.
- All purchases of AltroGuard systems are subject to the Terms and Conditions of Sale of Altro as amended by the terms of this Warranty.
- Nothing in this Warranty affects your statutory rights as a customer.

Register online

visit **www.altro.com**

Enter the services section, click on warranty registration and complete the on-line warranty form.



AltroGuard

6 Year Product Warranty

Installation Site: _____

Address: _____

Area Type: _____

Installed by: _____

Date of Purchase: _____

Date of Installation _____

Batch No. and Quantity: _____ m²

Customer Name: _____

Address: _____

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To be completed by Altro

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