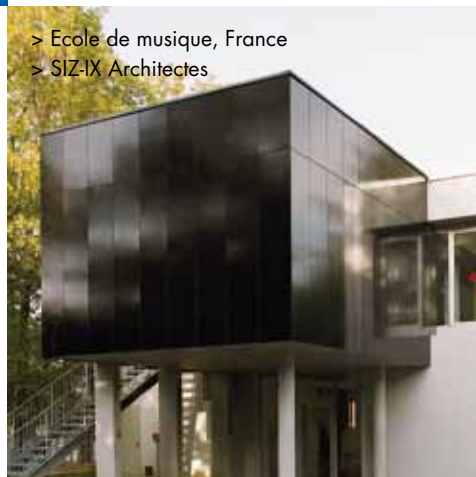
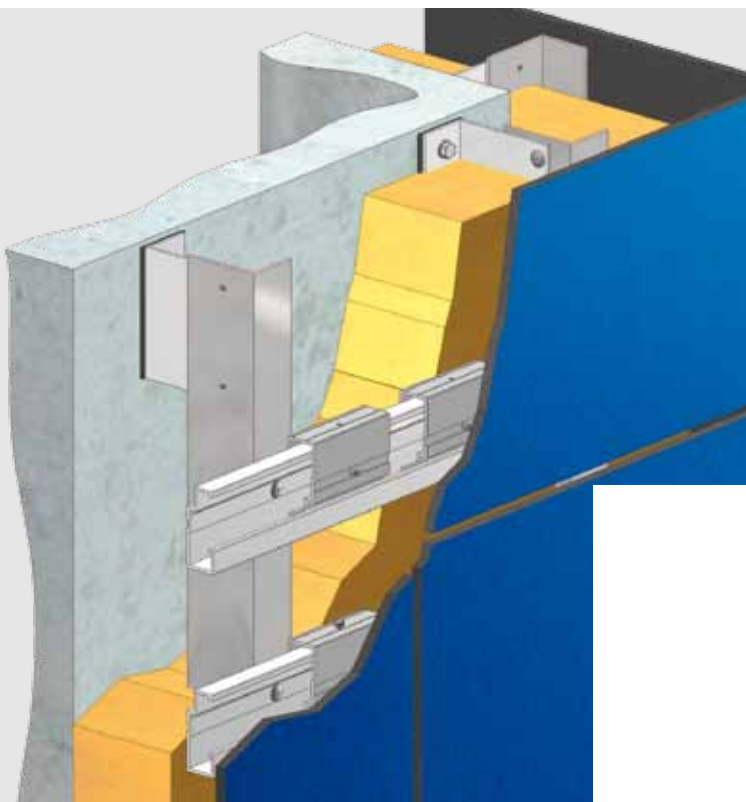


TS200 INVISIBLE (CONCEALED) FIXING WITH BRACKETS ON RAILS

This system offers large flexibility for installing Trespa® Meteon® panels, the use of adjustable brackets allow for precise joints and an optimal façade grid.

Trespa® Meteon® panels with a minimum thickness of 10 mm may be fixed invisibly on an aluminium sub-frame comprising horizontal rails and hanging brackets fixed with inserts or screws to the back of the panel.



This document is intended to provide general recommendations only. Trespa provides these guidelines and all testing, code and design data for informational purposes only and strongly advises that the customer, project owner and architect seek independent advice from a certified construction professional and/or engineer regarding application and installation as well as compliance with design requirements, applicable codes, laws and regulations, and test standards. Please check your local codes and applicable design requirements for proper use.

OVERVIEW OF AVAILABLE CERTIFICATES

The following overview provides you with a general and non-binding indication of certificates in relation to fixing system TS200: invisible (concealed) fixing with brackets on rails commonly used by Trespa customers in specific countries. To consult full details of available certificates please visit www.trespa.info/meteon/certificates

Country	Country code	Commonly used	Certificate
Netherlands	NL	■	KOMO attest-met-productcertificaat, Gevelbekleding systeem met Trespa Meteon en Trespa Meteon/ FR panelen GB-001/7
Germany	DE	■	Allgemeine bauaufsichtliche Zulassung: Rückseitige Befestigung mittels Hinterschnittanker Z-21.9-1544
Belgium	BE	■	Technische goedkeuring met certificaat voor Trespa Meteon en Trespa Meteon FR ATG 05/2021 Agrément technique avec certification de Trespa Meteon et Trespa Meteon FR ATG 05/2021
France	FR	■	Avis Technique 2/07-1245: Trespa Meteon système invisible TS200.
United Kingdom	UK	■	BBA certificate Trespa Meteon wall cladding panels and fixings. 99/3629
Spain	ES	■	Sistema de revestimiento de fachadas ventiladas con placas Trespa Meteon FR. DIT 473.
Italy	IT	■	No certificate available.
China	CN	■	No certificate available.
Chile	CL	■	No certificate available.
Trespa Export Countries	Other		Not applicable, local certificates may apply.

GENERAL INSTALLATION DETAILS

Cavity depth and ventilation

For a continuous ventilation behind the panel, Trespa recommends the free air cavity depth between the rainscreen cladding and the insulation or wall construction to be between 20 and 50 mm, in order to allow for ambient air to flow through from the ventilation inlets and outlets. Ventilation inlets and outlets must be the equivalent of minimum 50 square cm per linear meter over the whole façade. Cavity depth as well as ventilation inlets and outlets must be in accordance with applicable building standards, regulations and certificates.

Sub-frame

The horizontal aluminium rails can be fixed on a vertical timber or aluminium sub-frame.

Trespa® Meteon® panels must be installed on a sub-frame of sufficient strength and permanent durability. Quality and/or treatment of the sub-frame must be in accordance with applicable building standards, regulations and certificates.

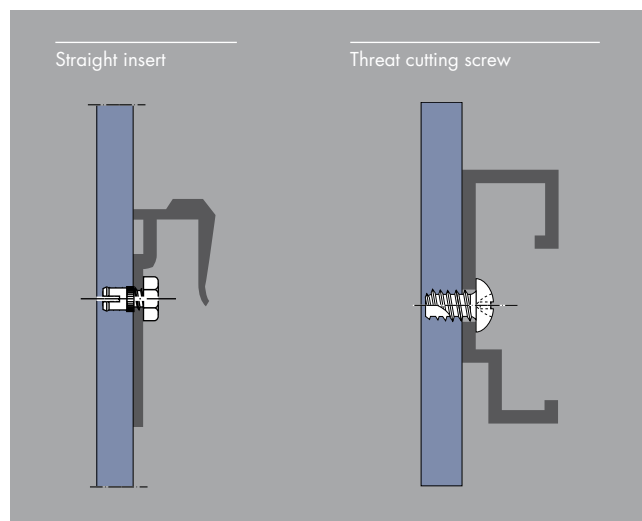
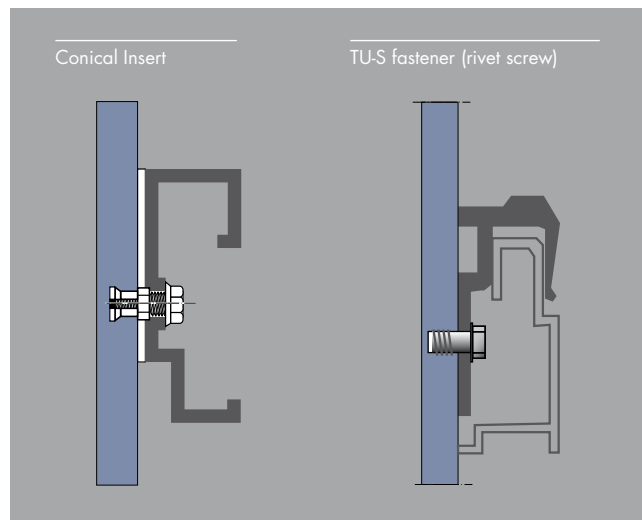
Some countries may allow the use of a stainless/galvanized steel sub-frame. Please consult the certificate or contact your local Trespa representative.

Fixing detail

Panel brackets are attached to the Trespa® Meteon® panels using two stainless steel inserts or screws per bracket. Each panel has two adjusting points. To retain panel position, the panel must have one fixed point at the top by inserting a self-drilling screw (or similar) through the hanging bracket and into the rail. Alternatively, where access is impossible, each panel must have one glued fixed point (with proprietary adhesive system e.g. polyurethane).

Fixing method:

- straight insert
- thread cutting screw
- conical insert
- TU-S fastener (rivet screw)



Remaining panel thickness: at least 2.5 mm.

Anchoring depth: total panel thickness minus 3 mm.

Due to aesthetics, the use of gloss panels is not recommended for this system.

OVERVIEW OF TECHNICAL INSTALLATION DETAILS

The following table gives a general overview of some of the most significant technical installation details in those countries where this fixing system is commonly used. For details of certification see: Overview of available certificates.

In certain countries specific certification requirements may apply. For countries in which a certificate for this fixing system is available, the following table presents a summary of the certificate. For countries in which no certificate for this fixing system may be available, the

information given in the following table only contains an advise as to the installation commonly used by Trespa customers, as based on Trespa's experience. For all countries Trespa strongly advises that the customer, project owner and architect seek independent advice from a construction professional regarding the accordance to national and/or local building regulations of fixing systems.

The information below does not contain all requirements with regard to the certificates. For design and installation, the complete certificate(s) must be considered. To consult these certificates, please visit www.trespa.info/meteon/certificates

Panel thickness

Panel thickness (mm)	Country with certificate	Country without certificate
10, 13	NL, DE, BE, FR, UK, ES	IT, CN, CL

Maximum panel dimension

Max. panel dimensions (mm)	Country with certificate	Country without certificate
3050 x 1530 or 2550 x 1860	DE	
Max. height 3050 Max. length 3650	NL, BE, FR ^A , UK, ES	IT, CN, CL

^A For other panel lengths, please consult the certificate.

Joint width

Joint width (mm)	Country with certificate	Country without certificate
10	NL, DE, BE, UK, FR ^B , ES	IT, CN, CL

^B For other joint width, please consult the certificate.

Based on applicable building standards, regulations or certificates, wider joints may be permissible.

Minimum dimensions sub-frame

Any vertical timber, aluminium or stainless/galvanized steel sub-frame must be designed in accordance with applicable local standards, regulations and certificates.

Edge clearance

Edge clearance (mm)	Country with certificate	Country without certificate
Please consult the certificate for the edge clearances	NL, BE, DE, FR, ES	
Vertical and horizontal edge distance minimum 65 mm and maximum 10 x panel thickness, counted from the center of the first fixing		UK, IT, CN, CL

Recommended maximum fixing distances

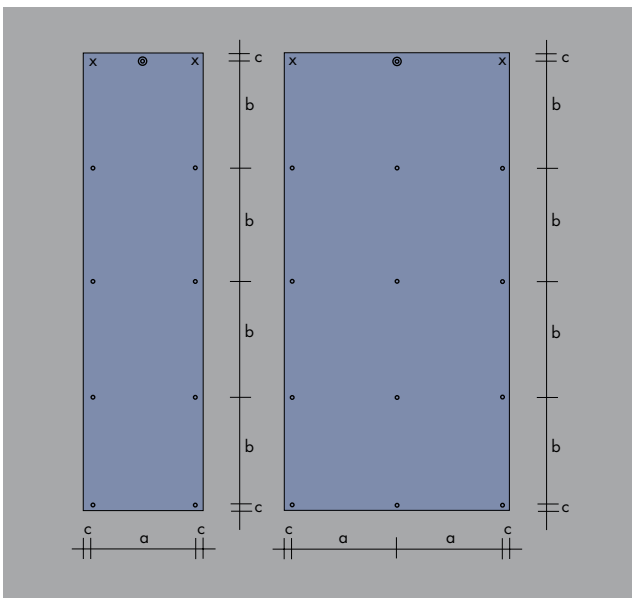
Maximum fixing distances (mm) ^{c,d}	Panel thickness (mm) for Satin / Rock		Country with certificate	Country without certificate
	10	13		
2 fixings in one direction	Please consult the certificate for the fixing distances		NL, DE, BE, FR	
3 or more fixings in one direction	Please consult the certificate for the fixing distances		NL, DE, BE, FR	
2 fixings in one direction	750	950	UK, ES	IT, CN, CL
3 or more fixings in one direction	900	1200	UK, ES	IT, CN, CL

^c Fixing distances for soffit application must be multiplied by 0.75.

^d The maximum permitted fixing distances shown have been designed with a maximum (wind) load of 600 N/ m² and maximum deflection of L/200.

Fixing distances must be calculated in accordance with applicable local standards, regulations and certificates and should be verified by a structural engineer.

For more information about deflection and wind loads, please visit www.trespa.info/meteon/fixingsystems



Fixing and edge clearances

a = horizontal fixing distance

b = vertical fixing distance

c = edge clearance

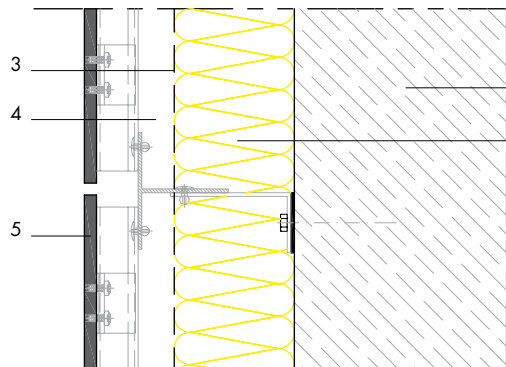
© = fixed point

X = adjusting point

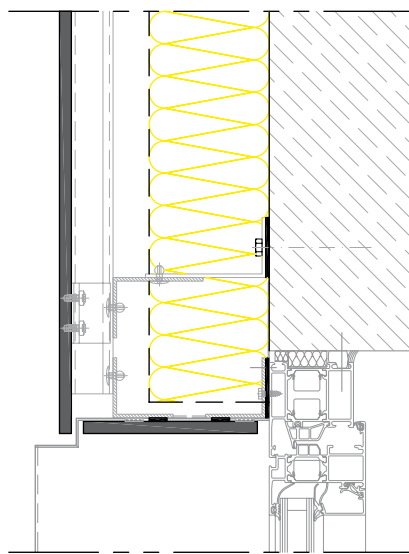
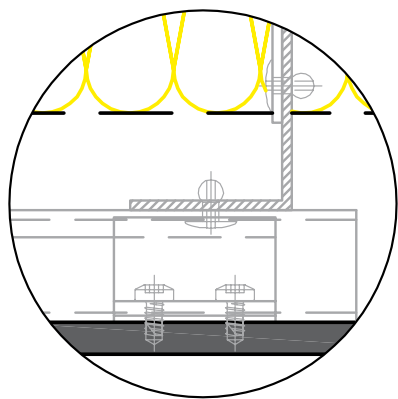
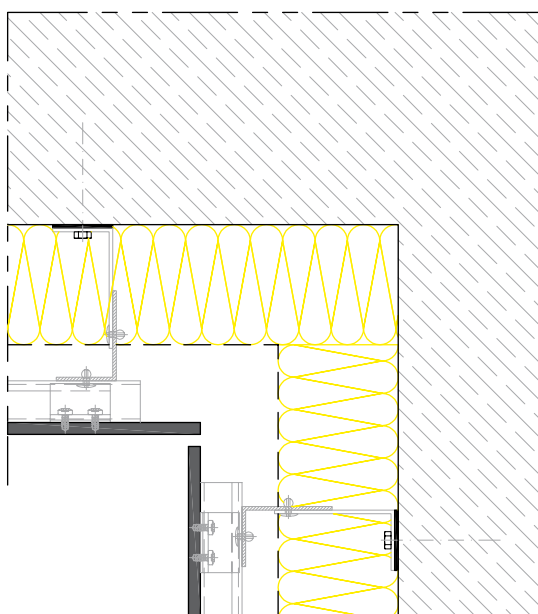
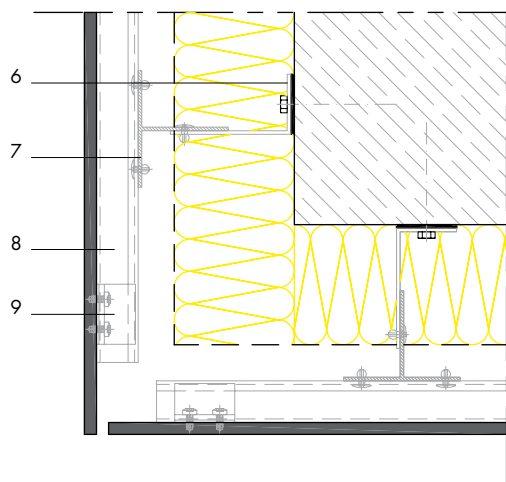
O = sliding point:

Lower brackets fixed higher at such a level as to facilitate downward panel movement (2.5 mm/m¹)

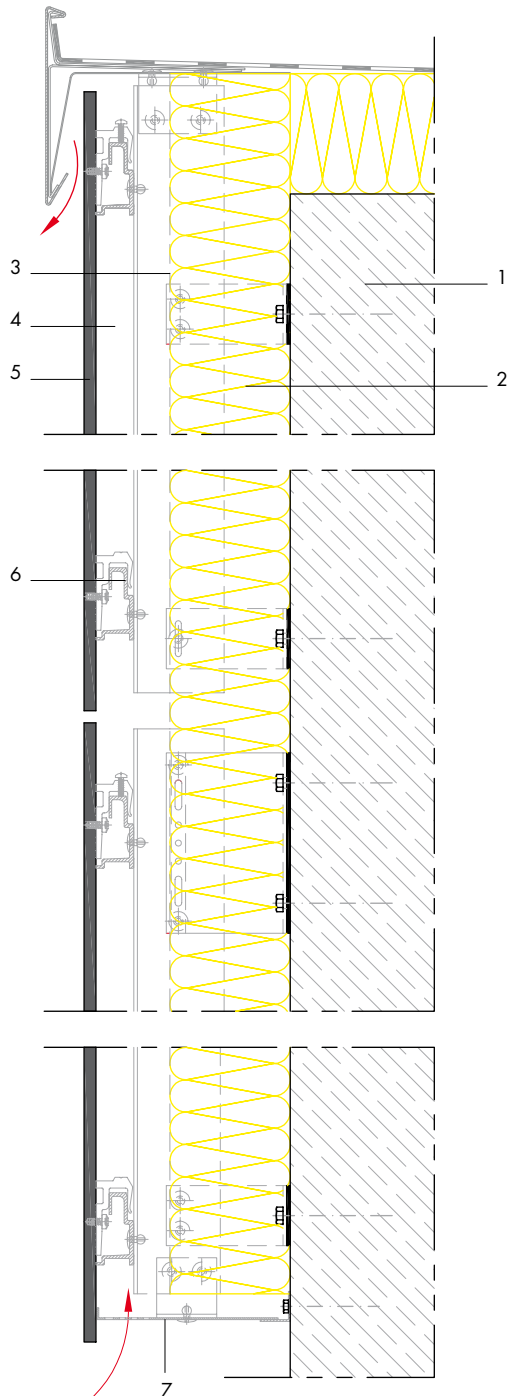
Horizontal cross-section



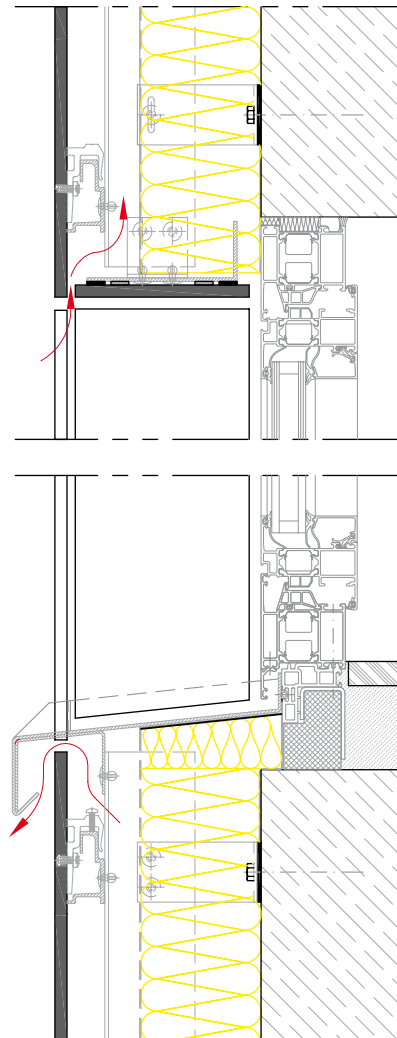
- 1. Load bearing wall (concrete, masonry)
- 2. Thermal insulation
- 3. Weather barrier (vapour permeable)
- 4. Ventilated cavity
- 5. Trespa® Meteor® panel
- 6. Wall bracket
- 7. Vertical aluminium rail
- 8. Horizontal aluminium rail
- 9. Aluminium hanging bracket



Vertical cross-section



1. Load bearing wall (concrete, masonry)
2. Thermal insulation
3. Weather barrier (vapour permeable)
4. Ventilated cavity
5. Trespa® Meteon® panel
6. Horizontal aluminium rail
7. Ventilation profile



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