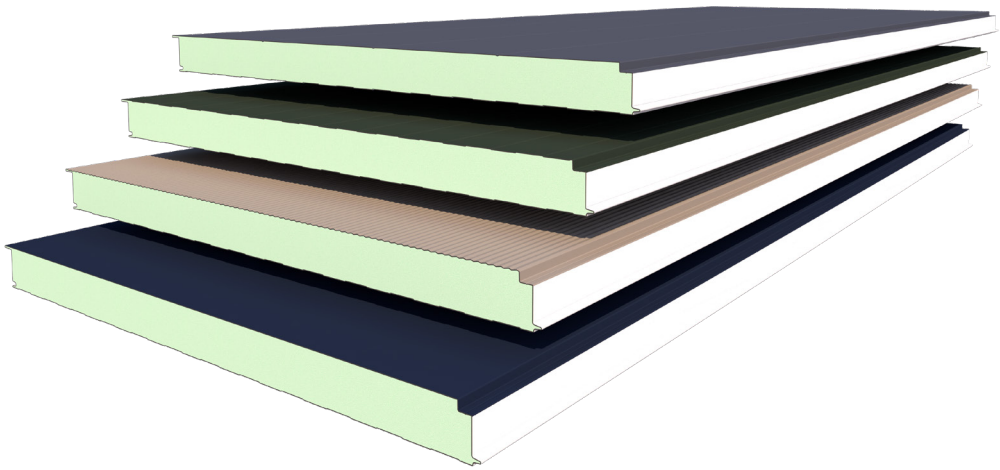
Protected by

Kingspan WARRANTY

TZ-V

HIGH PERFORMANCE INSULATING PANELS FOR FACADES AND PARTITIONS, WITH A VARIETY OF FINISHING OPTIONS



- PIR insulation core with high thermal performance (declared thermal conductivity of 0.022 W/mK).
- Lightweight enclosure with vertical or horizontal installation options. Also suitable for ceilings and interior partition walls.
- Structural steel sheets with four different finishes and different coating options for high durability.
- Does not absorb water and maintains its performance throughout its lifetime and is not affected by biological agents.
- Guaranteed and certified quality and safety.

CE AENOR AISLANTE TÉRMICO

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TZ-V Facade panel

DESCRIPTION AND APPLICATIONS

Sandwich panel with **steel faces** and **rigid, insulating** core.

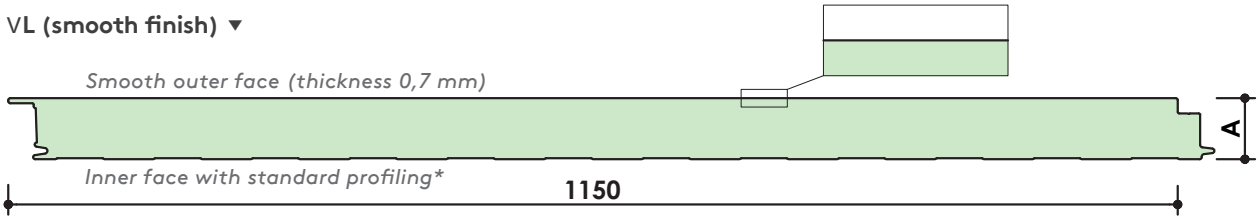
Thanks to its **hidden fixings**, it provides a finish with **great architectural value**.

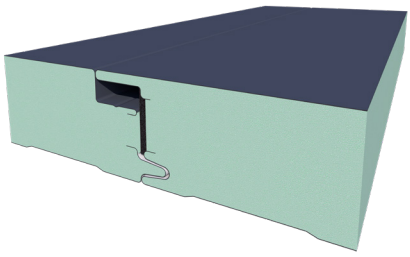
Available in **four different finishes** and **various thicknesses, coatings and colours**.

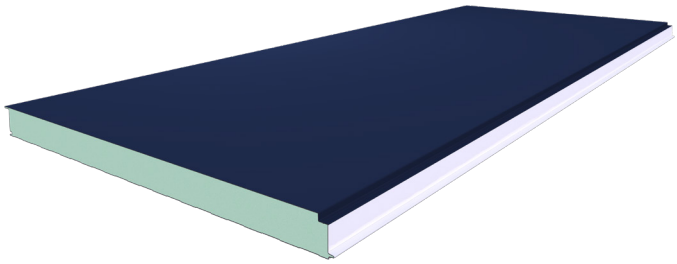
Insulating facades for industrial, residential, commercial and sports facilities, as well as for **roofs and internal partitions**.

FINISHING OPTIONS

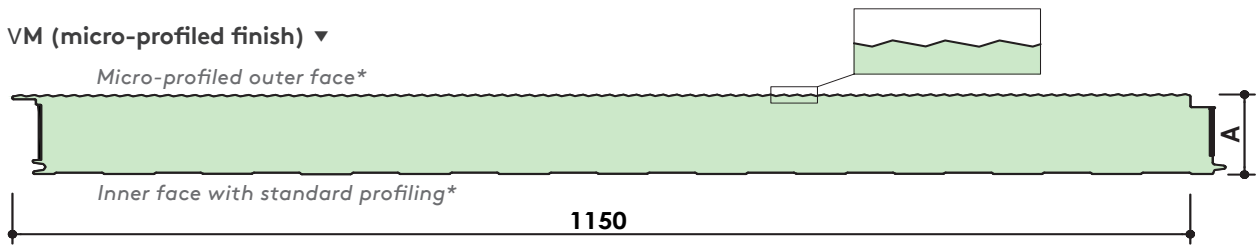
VL (smooth finish) ▼

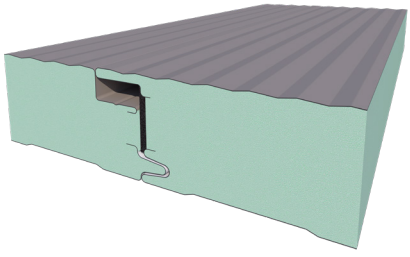


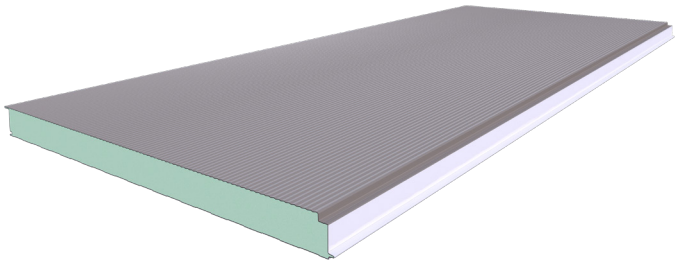




VM (micro-profiled finish) ▼







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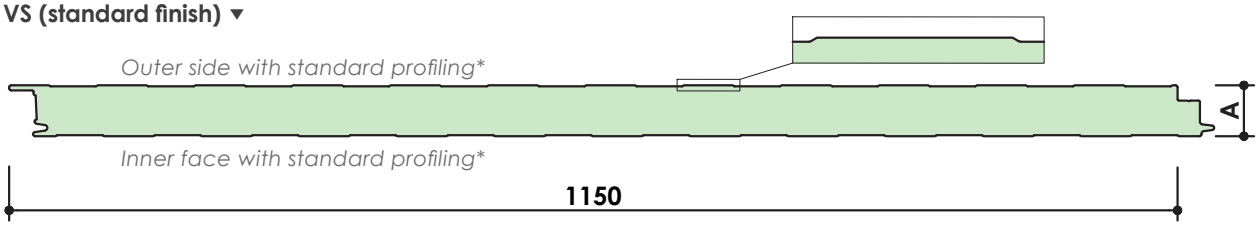
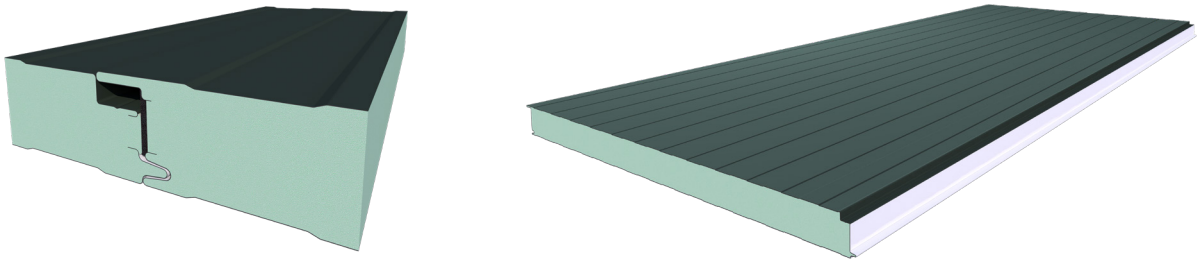
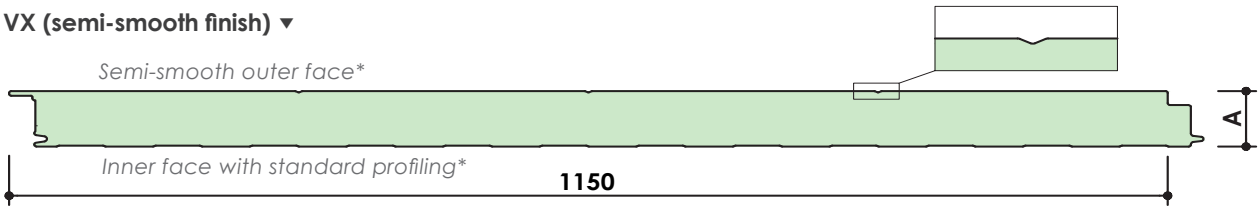
Facade panel **TZ-V**

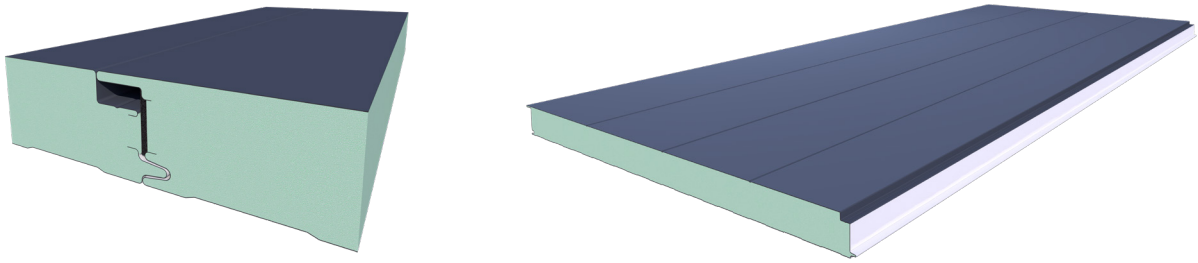
VS (standard finish) ▼





VX (semi-smooth finish) ▼





COMPONENTS

Insulating core

Rigid polyisocyanurate foam (PIR) continuous injection.

Steel faces

Cold-formed sheet from structural steel coil type S220GD, certified quality.

Smooth (VL), micro-profiled (VM), standard profiled (VS) or semi-smooth (VX) outer face. Inner face with standard or smooth profile on all models.

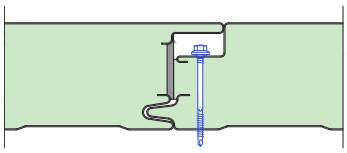
Standard sheet thicknesses: Smooth outer side 0.7 mm for VL, and 0.5 mm for VM, VS and VX. Inner side 0.5 mm. Other thicknesses on request.

Applicable regulations

Hot-galvanised sheet metal according to EN 10346 and organic coatings according to EN 10169.

Hidden joint

Tongue and groove joint that hides the fixing of the panel to the supporting structure, which protects the screw head and increases its durability.



Water permeability*: Class A (watertight seals up to 1800 Pa). Class A is the best classification according to EN 12865:2002, for demanding applications with heavy rain and strong winds.

Air permeability*: Permeability of 0.00 m3/h- m2 at 50 Pa with seal and polyethylene foam.

(*) Applies to thicknesses equal to or greater than 60mm.

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TZ-V Facade panel

DIMENSIONS, WEIGHT AND THERMAL PERFORMANCE

Useful width			1,150 mm				
Manufacturing length	Standard		2.0 a 13.5 m				
	Special		13.5 a 16 m (special transport)				
Thermal conductivity (PIR)			0.020 W/mK				
Declared thermal conductivity (PIR)			0.022 W/mK (considering an aged core)				
Insulating core density			40 ± 5 kg/m³				
Thickness of insulating core (A)	35	40	50	60	80	100	(mm)
Selfweight	9.75	9.95	10.35	10.75	11.55	12.35	(kg/m²)
Thermal transmittance (PIR)	0.65	0.55	0.44	0.36	0.27	0.22	(W/m²K)

NOTE:

(1) Thermal transmittance determined in accordance with standard UNE-EN 14509:2014, considering the effect of the ageing of the insulating core, and certified by the AENOR N mark.

(2) For 0.5/0.5mm sheets (int/ext).

AVAILABLE COATINGS

Table of coatings to guarantee a high durability of the panel, considering the classification of CPI1 and RC1 suitable for healthy environments, and CPI5 and RC5 suitable for very aggressive environments.

	Outdoor environment								**Indoor environment**			
		Urban/ Industrial		**Marine**			**Resistance**		**Healthy Environments**			
	Rural without pollution	Moderated	Severe	Between 3 and 20 km	< 3 km (1)	Mixed	External corrosion category	UV	Low humidity	Medium humidity	**Aggressive and/ or very humid**	**Resistance** Indoor corrosion category
E5001	⊗	⊗	⊗	⊗	⊗	⊗	NA	NA	✓	⊗	⊗	!
Polyester 25 µ	✓	✓	!	!	⊗	⊗	!	!	✓	✓	Ai3(2)	CPI2
Polyester plus 25 µ	✓	✓	!	✓	⊗	⊗	RC3	RUV2	✓	✓	Ai3	CPI3
HDS 35 µ	✓	✓	!	✓	!	!	RC4	RUV4	✓	✓	Ai3	CPI4
PVDF 35 µ	✓	✓	!	✓	!	!	RC4	RUV4	✓	✓	Ai3	CPI4
HDX 55 µ	✓	✓	✓	✓	✓	!	RC5	RUV4	✓	✓	Ai3	CPI4
PET 50 µ	⊗	⊗	⊗	⊗	⊗	⊗	NA	NA	✓	✓	Ai5	CPI5

✓ Suitable coating ⊗ Unsuitable coating ! Consult with Kingspan | Teczone

(1) For distance <300m, consult us. (2) Check conditions (NA) Not applicable. For other coatings, consult our Technical Department.

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REACTION-TO-FIRE

Reaction-to-fire classification

EUROCLASS B-s1,d0

B:	Very limited contribution to fire and will not lead to flashover[1]
s1:	Reduced or no smoke generation
d0:	No inflamed droplets / particles

Reaction-to-fire determined according to UNE-EN13501:1-2019.
(1) Best possible classification for an organic type material.

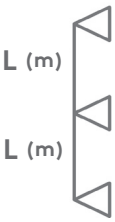
TABLE OF USE (ADMISSIBLE SPAN)

The following tables show the maximum permissible distances between supports (m) as a function of the panel thickness (mm) and the characteristic pressure load (not increased) uniformly distributed (daN/m2). Tables calculated according to European Standard EN 14509:2013 for SLS and ULS. Please consult us in case of rising loads (suction).

TWO SUPPORTS

Thickness (mm)	Presion loads (daN/m²) 50	75	100	125	150	175	200
35	3.74	3.22	2.84	2.55	2.32	2.06	1.80
40	3.81	3.60	3.17	2.84	2.59	2.31	2.02
50	4.72	4.28	3.76	3.39	3.10	2.86	2.56
60	5.59	4.91	4.33	3.90	3.58	3.31	3.09
80	7.15	6.04	5.23	4.68	4.27	3.95	3.7
100	8.39	6.99	6.06	5.42	4.94	4.58	4.28

THREE SUPPORTS



Thickness (mm)	Presion loads (daN/m²) 50	75	100	125	150	175	200
35	2.76	2.47	2.29	2.15	2.05	1.97	1.80
40	3.43	3.02	2.77	2.59	2.43	2.31	2.02
50	4.25	3.70	3.33	3.07	2.87	2.72	2.56
60	4.92	4.22	3.77	3.47	3.25	3.07	2.93
80	6.17	5.21	4.65	4.26	3.98	3.76	3.58
100	8.05	6.75	5.97	5.42	4.94	4.58	4.28

1 daN/m² ≈ 1 kg/m²

Support width = 50 mm Support width > 50 mm

Notas: Please contact us for shorter support lengths.
Tables are valid for dark coloured panels. Please consult us for light-coloured panels.
Minimum outside temperature considered: -10°C.

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QUALITY AND MANUFACTURING STANDARDS

Guaranteed and certified quality

The TZ-V range of panels is manufactured from high quality raw materials using automated and constantly monitored C.I.M. manufacturing lines and is subject to strict quality control to ensure compliance with high quality standards. The panel is subjected to bending, compression and tensile tests, thermal conductivity, core density, accelerated ageing and dimensional controls, among others.
The Integrated Quality Management System, in accordance with ISO 9001, is audited and certified by AENOR and IQNet.

TZ-V panel certificates

CE marked in accordance with EN 14509:2013.

Product certified with the N of AENOR. (Certificate 020/003381).

ADDITIONAL FEATURES

Resistance to biological agents

Kingspan | Teczone panels, thanks to the closed structure of the insulating core, are resistant to attack by fungi, moulds and other biological spoilage agents.

Water absorption

The insulating core of the panel does not absorb water, thus maintaining its thermal performance throughout its useful life. It can therefore be installed in adverse weather conditions.

Watertightness

The careful tongue and groove design of the panel's concealed joints is certified by an external laboratory. Regarding the watertightness requirement of the CTE, in sections 5.2.6, 5.2.7 and 5.2.8 of EN 14509:2013, it is determined that sandwich panels with metal faces are considered watertight, airtight and water vapourtight, these parameters being relevant only in the joints and fixings depending on the installation.

Sustainability

Both the steel and its metallic and organic coatings are free of SVHC ("Substances of Very High Concern"), in compliance with the requirements of the European REACH regulation. The insulating core of the panel is injected using a process that does not release HCFC-type gases. The Environmental Management System (ISO 14001) and the Occupational Health and Safety System (ISO 45001) are certified by AENOR and IQNet.

Warranty

The Kingspan | Teczone TZ-V range of panels are warranted for up to 25 years for the functional performance of the panel and up to 35 years for its coatings. Please consult conditions.

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