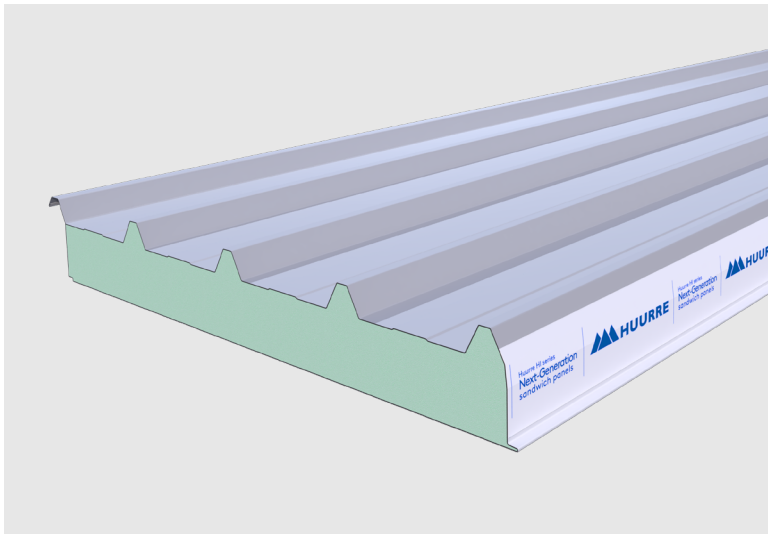
HI-XT
Roof panel

DATA SHEET

High performance insulating panel



- Rigid insulating core with high thermal properties (thermal conductivity is only 0.022 W/mK considering aged foam core).
- Longitudinal joint design with overlapping flap that enables quick assembly and guarantees hight watertightness.
- Panels may be overlapped in roofs over 16 m in length.
- High mechanical strength with spans up to 6.5 m.
- Structural steel sheets with various long-lasting coating options.
- Does not absorb water and maintains its performance throughout its lifetime and is not affected by biological agents.

CE

HUURRE

HI-XT Roof panel

High performance insulating panel

Description and applications

Sandwich panel for roofs with rigid insulating core and exterior faces of profiled structural steel sheets.

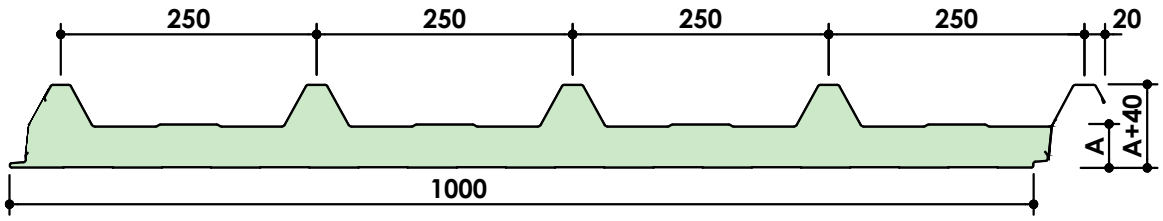
Lightweight enclosure with high insulating properties, its tongue-and-groove sealed joints guarantee full enclosure leak-tightness.

The HI-XT range of panels is available with a PIR (HI-PIR XT) or PIRM (HI-PIRM XT) insulating core.

Available in various steel thicknesses, coatings and colours.

Thermally efficient roofs, with high aesthetic value and quick execution for industrial, commercial, agricultural sector buildings and public centres.

Dimensions, mass and thermal performance



Useful width	1,000 mm							
Manufacturing lenght	2.0 to 13.5 m							
	13.5 to 16.0 m (requires special transportation)							
Fresh thermal conductivity	0.020 W/mK							
Declared thermal conductivity[1]	0.022 W/mK (considering aged core)							
Insulation core density	PIR: 40 (± 5) kg/m³ | PIRM: 40 (-2/+5) kg/m³							
Insulating core thickness (A)	30	40	50	60	80	100	120	(mm)
Mass[2]	9,64	10,04	10,44	10,84	11,64	12,44	13,24	(kg/m²)
Thermal transmittance[1,2]	0.64	0.50	0.40	0.34	0.26	0.21	0.18	(W/m²K)
Thermal resistance[2]	1.58	2.04	2.49	2.95	3.86	4.77	5.68	(m²K/W)

NOTES: (1) Thermal transmittance determined according to standard UNE-EN 14509:2014, considering the aging effect of the insulating core.

(2) Considering 0,4/0,5 mm steel sheets (int/ext). Consult for other options.

HI-XT Roof panel

High performance insulating panel

Components

Insulating core

Continuously injected polyisocyanurate rigid foam (PIR or PIRM).

Sheeting

Cold profiled sheet made from certified quality type S220GD structural steel coil.
Ribbed upper face, slightly profiled lower face.

Standard sheet thicknesses: standard 0.5/0.4mm (ext/int) for HI-PIR XT and 0.5/0.5mm (ext/int) for HI-PIRM XT.

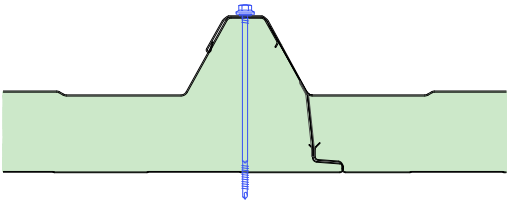
Applicable standards

Hot galvanized sheet according to EN 10346 and organic coating according to EN 10169.

Coating

The HI-XT panel can be manufactured with various coatings to ensure maximum durability, depending on the environment and the intended conditions of use(see table of available coatings).

Joint detail



Available coatings

Table of coatings choice to guarantee the maximum 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**		**Non-agressive environments**			
	Rural without pollution	Moderate	Severe	Between 3 and 20 km	< 3 km [1]	Mixed	Outdoor corrosion category	UV	Low humidity	Medium humidity	**Aggressive and/ or very humid environments**	**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

✓ Suitable coating ⊗ Unsuitable coating ! Check with HUURRE IBÉRICA (1) Please contact us for distances < 300 m. (2) Check conditions.

(NA) Non applicable. Consult with our Technical Department for other coatings.

HI-XT Roof panel

High performance insulating panel

Tables of maximum spans (m)

The following tables show the maximum admissible distances between supports (m) as a function of the panel thickness (mm) and the downward uniformly distributed load (daN/m²). Contact our technical department for upward load cases.

TWO SUPPORTS

L(m)

Thickness	Downward load (daN/m²) 50	75	100	125	150	175	200
30	3.87	3.27	2.87	2.61	2.40	2.23	2.04
40	4.38	3.71	3.28	2.96	2.71	2.52	2.32
50	4.89	4.16	3.69	3.32	3.03	2.80	2.60
60	5.40	4.61	4.09	3.68	3.34	3.08	2.87
80	5.95	5.43	4.81	4.35	3.99	3.69	3.45
100	6.50	6.25	5.53	5.02	4.63	4.31	4.04
120	6.50	6.50	6.10	5.55	5.12	4.78	4.51

THREE SUPPORTS

L(m) L(m)

Thickness	Downward load (daN/m²) 50	75	100	125	150	175	200
35	4.79	4.03	3.53	3.16	2.69	2.32	2.04
40	5.03	4.24	3.72	3.34	2.92	2.60	2.35
50	5.27	4.45	3.90	3.51	3.16	2.88	2.66
60	5.51	4.65	4.08	3.69	3.39	3.15	2.96
80	5.94	5.02	4.42	4.00	3.67	3.40	3.09
100	6.37	5.40	4.75	4.30	3.96	3.64	3.21
120	6.50	6.27	4.97	4.08	3.45	3.00	2.64

1 daN/m² ≈ 1 kp/m²

NOTES: Tables determined according to NF EN 1991-1-3.
Document Technique d'application 2-3/16-1772_V2.

Reaction to fire

Fire reaction classification

EUROCLASS B-s1,d0

B:	Lery limited contribution to fire and will not lead to flashover[1]
s1:	Little or no smoke production
d0:	No flaming droplets / particles

(1) Best possible rating for an organic material.

HI-PIR XT according to the UNE-EN 13501-1:2019 standard HI-PIRM XT according to the UNE-EN 13501-1:2017+A1:2010 standard.

Broof CLASSIFICATION (in accordance with the standard EN 13501-5:2016, which classifies construction products with respect to non-propagation and behavior against an external fire.

Fire reaction according to <FM Approvals> standards (HI-PIRM XT panel only)

FM APPROVED

FM 4880 Class 1* Fire resistance of building panels or interior finishing materials
FM 4471 Class 1* Panel roofs

The FM 4880 assess the fire performance of HI-PIRM XT panel against the highest fire protection requirements.

(*) Subject to mounting and coating conditions. Consult with our technical department.

RoofNav

The inclusion of the HI-PIRM XT panel in RoofNav certifies that the roofing solution is certified** by FM Approvals.

(**) Subject to assembly conditions. Consult coating conditions with our technical department.

HUURRE

HI-XT Roof panel

High performance insulating panel

Quality and manufacturing regulations

Certificates for HI-PIR XT and HI-PIRM XT panels

CE marking according to standard EN 14509:2013.

Avis Technique d'Application for HI-PIR XT panel 2.3/16-1772_V2. Tested under the name "COVISO 4.40 / HI-XT"

(*) Except for 50mm thick panels. Consult conditions.

Certificates for HI-PIRM XT - FM APPROVALS

Insurer approvals are large scale testing regimes that provide objective third-party testing, which is underpinned by annual factory surveillance audits to verify compliance. Insurer approvals are subject to panel thickness, method of assembly and steel coating

Additional features

Resistance to biological agents

HUURRE panels, thanks to the closed structure of the insulating core, are resistant to attack by fungi, moulds and other deteriorating biological agents.

Water absorption

The insulation core does not absorb water, thus maintaining its thermal performance over its entire life. Therefore, it can be installed in adverse weather conditions.

Water tightness

The panel joint design includes a half-joint and flap overlap, which guarantees absolute watertightness against rainwater. Regarding the impermeability requirement of CTE for enclosures, in sections 5.2.6, 5.2.7 and 5.2.8 of EN14509:2013, it is stated that sandwich panels with metal faces are considered to be water, air and steam tight. These parameters are thus only relevant in joints and fixings, depending on the installation system.

Sustainability

Both the steel and its metallic and organic coatings are free from SVHC ("Substances of very high concern"), in accordance with the requirements of the European REACH regulation.

The insulation core of the panel is injected by means of a non-HCFC gas release process.

Warranty

HUURRE's HI-XT panel has 25 year warranty for the functional performance of the panel and up to 35 years for its coatings. Please contact us for terms and conditions.

Guaranteed and certified quality

HUURRE's Integrated Quality Management System, in accordance with ISO 9001, is certified by AENOR and IQNet (certificate ER-0947/1998).

HUURRE's Environmental Management System, in accordance with ISO 14001, and the Occupational Health and Safety System, in accordance with ISO 45001, are certified by AENOR and IQNet (certificates GA2003/0091 and ES-SST-0035/2010 respectively).

The Compliance Management System, in accordance with ISO 37301:2021, is certified by Advanced Certification Ltd.

HI-XT Roof panel

High performance insulating panel

Download the latest version by scanning the QR code or by clicking here

Huurre Ibérica S.A.U.
Carrer Serinyà 43
Polígon Industrial el Trust
17244 Cassà de la Selva
Girona (Spain)
(+34) 972 463 085
(+34) 972 463 208
huurre@huurreiberica.com

IT-GC-192 | REV. 4.1 | 29/10/2024