

High-performance cold storage panel with new QuadCore 2.0 insulation core





- ► High mechanical resistance performance and suitable for outdoor use.
- ▶ New joint design, which provides better panel and installation performance.
- Four finish options and a wide range of coatings for high durability.
- ► No water absorption, maintains its performance throughout its useful life, and it is not affected by biological agents.







High thermal performance panel for cold storage



Description and applications

Cold storage panel with steel faces and new QuadCore 2.0 rigid insulating core, which provides high thermal insulation and durability.

Certified panel for use both indoors and outdoors, designed for applications requiring a high degree of insulation and watertightness: food industry, cold storage rooms, laboratories, clean rooms, etc.



Dimensions, mass and thermal properties



Useful width		1,120 n	nm					
	Standard							
Manufacturing lenght	Special	13.5 a 18 m (special transport)						
Type of joint		FK						
Fresh thermal conductivity		0.018 V	V/mK					
Declared thermal conductivity		0.019 W/mK (considering an aged core)						
Total thickness (A)	80	100	150	200	230	(mm)		
Mass ¹	11.85	12.65	14.65	16.65	17.85	(kg/m²)		

NOTE: (1) For 0.5/0.5mm (int/ext) and 1,120 mm wide sheets. Consult for other options.





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QuadCore 2.0 core benefits



High thermal efficiency

The QuadCore 2.0 insulation core has a high thermal performance, with an aged thermal conductivity of just 0.019W/mK.



High level of protection to fire

The QuadCore 2.0 core has a higher fire performance, providing a better protection in case of fire.



High environmental sustainability

The use of Huurre's range of HI-QuadCore 2.0 panels can enable reduce operational enery loss and reduces associated transport emissions.



High durability

By not absorbing moisture, the performance of the QuadCore 2.0 panel does not diminish over time, offering its high durability.

Components

Panel facings

Cold profiled sheet from structural steel coil type S220GD, of certified quality, hot galvanized according to EN 10346 and EN 10169. Standard sheet thicknesses: 0.5/0.5 mm (interior/exterior).

It is essential to respect the orientation of the panel faces: outer face with transparent film, inner face with blue film.

Insulating core

QuadCore 2.0 rigid foam with microcells, injected continuously, through a process that does not release HCFC-type gases.

Finishes

Manufacture with four finishing options: standard in slightly corrugated finish, or smooth, semi-smooth or micro-profiled. Semi-smooth profiling on panels with a width of 1,120mm is

Reaction to fire

Fire reaction classification

EUROCLASS B-s1,d0

B: Very limited contribution to fire and will not lead to flashover¹

s1: Little or no smoke generation

d0: No inflamed droplets / particles

(1) Best classification possible for an organic type material.

Reaction to fire is determined according to UNE-EN 135011:2019 standard.





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Mechanical resistance and usage tables

HI-QuadCore 2.0 FK panels are suitable for use in walls, ceilings and exterior cladding facade, thanks to its high rigidity, resistance to impacts and high durability.

The following tables show the maximum permissible distances between supports (m) depending on the thickness of the panel (mm) and the uniformly distributed characteristic pressure load (daN/m2). Tables calculated according to UNE-EN 14509:2014, both for SLS and ULS. Consult us for the case of suction loads.

TWO SUPPORTS

			Pressure loads (daN/m²)										
	\triangleleft			50	75	100	125	150	175	200			
L(m)			80	6,67	5,60	4,82	3,86	3,22	2,77	2,42			
		SS	100	7,83	6,59	5,71	4,84	4,04	3,46	3,04			
		ķ	150	9,48	7,75	6,71	6,00	5,48	5,07*	4,56*			
		Thic	200	10,42	8,51	7,37	6,59	6,01*	5,56*	5,21*			
			230	9,18	7,49	6,49*	5,80*	5,30*	4,89*	4,57*			

MULTI SUPPORTED

4				Pressure loa	ds (daN/m²))				
				50	75	100	125	150	175	200
L(m)			80	7,16	5,85	4,83	3,87	3,23	2,77	2,42
I(m)	N	ess.	100	8,07	6,59	5,65	4,83*	4,03*	3,45*	3,02*
L(III)	4	ķ	150	9,49	7,61	6,70*	5,99*	5,47*	5,06*	4,56*
L(m)	~	Thic	200	10,97	8,95*	7,74*	6,93*	6,33*	5,81*	5,48*
	\triangleleft		230	9,18	7,49	6,47*	5,78*	5,28*	4,88*	4,57*

 $1 \text{ daN/m}^2 \approx 1 \text{ kg/m}^2$

NOTES:

Support width = 50mm (*) Support width > 50mm

For other support widths, please contact us.

Tables are valid for light-coloured panels. Please contact us for dark panels.

Minimum outside temperature considered to be -10°C.

Quality and manufacturing standards

HI-QuadCore 2.0 FK panel certificates



CE marked according to EN 14509:2013.





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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			
	Rural without pollution	Urban/ Industrial		Marine			Resistance		Healthy Environments		and/		
		Moderated	Severe	Between 3 and 20 km	< 3 km (!)	Mixed	External corrosion category	\ 0	Low humidity	Medium humidity	Aggressive or or very humid	Resistance Indoor corrosion category	
E5001	×	(X)	(X)	⊗	(X)	(X)	NA	NA		⊗	(X)	()	
Polyester 25 µ	0	$\overline{\otimes}$	()	1	(X)	(X)	(1)	()		⊗	Ai3 ²	CPI2	
Polyester plus 25 µ	Ø	$\overline{\otimes}$	(1)	Ø	(X)	(X)	RC3	RUV2		Ø	Ai3	CPI3	
PVDF 35 μ	⊘	$\overline{\otimes}$	(1)	Ø	()	(1)	RC4	RUV4	Ø	⊘	Ai3	CPI4	
HDX 55 μ	0	$\overline{\otimes}$	⊘	Ø	0	(1)	RC5	RUV4		⊘	Ai3	CPI4	
PET 50 μ	⊗	×	⊗	⊗	(X)	(X)	NA	NA		Ø	Ai5	CPI5	
INOX	(X)	(X)	(X)	⊗	(X)	(X)	NA	NA	⊘	⊘	Ai5	Exc ²	
INOX PVC + PET	×	×	⊗	⊗	®	×	NA	NA		⊘	Ai6	Exc ²	

Suitable coating 8 Unsuitable coating 1 Consult HUURRE IBÉRICA (1) Consult for distances <300m (2) Check conditions (NA) Not applicable (Exc.) Excelent. For other coatings, consult our Technical Department.

Additional features

Resistance to biological agents

HUURRE HI-QuadCore 2.0 FK panels are resistant to attack by fungi, moulds and other biological spoilage agents due to the closed structure of the insulation core.

They are therefore suitable for applications requiring a high degree of hygiene and sanitation (food industry, laboratories, etc.).

Water absorption

The QuadCore 2.0 hybrid insulation core does not absorb water, and thus maintains its performance throughout its lifetime. For this reason, they can be installed in adverse weather conditions.

Sustainability

Both the steel and their metallic and organic coatings are free of SVHC (Substances of Very High Concern), in conformity with the requirements of the European REACH regulation.

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 its 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.





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