

High performance cold storage panel, with new QuadCore 2.0 insulating core



- High fire resistance, suitable as a fire compartmentation element in negative temperature chambers or chambers with high temperature gradients.
- 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.

CE







High thermal performance panel for cold storage

### **Description and applications**

Cold storage panel with new QuadCore 2.0 rigid insulation core, which provides high thermal insulation, high fire resistance 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.

The HI-QuadCore 2.0 FK DUAL panel is suitable as a fire compartmentation element in case of fire in freezing and refrigeration facilities, logistics and food industry. The fire resistance achieved depends on the thickness of the panel.



### Dimensions, mass and thermal properties



Useful width		1,120 m	nm					
	Standard	2.0 a 13.5 m						
Manufacturing lenght	Special	13.5 a 18 m (special transport)						
Type of joint		FK	FK					
Fresh thermal conductivity		0.018 W/mK						
Declared thermal conductivity		0.019 W/mK (considering an aged core)						
Total thickness (A)	80	100	150	200	230	(mm)		
Mass <sup>1</sup>	12.40	13.34	15.69	18.04	19.45	(kg/m²)		

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





# High thermal performance panel for cold storage



### 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 only 0.019W/mK.



# High thermal efficiency

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



# High environmental sustainability

The use of Huure'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 panel does not diminish over time, providing 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

Rigid QuadCore foam, 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.

## Fire safety

### Reaction-to-fire classification

#### **EUROCLASS B-s1,d0**

**B:** Very limited contribution to fire and will not lead to flashover<sup>1</sup>

**s1:** Reduced or no smoke generation

d0: No inflamed droplets / particles

 $\left(1\right)$  Best possible classification possible for an organic type material.

Reaction to fire determined according to UNE-EN 13501-1:2019.





# High thermal performance panel for cold storage



#### Fire resistance El

		Panel thickness (mm)							
Placement of the panel	Product name	80	100	150	200	230			
	HI-QuadCore 2.0 FK DUAL EI 30 PV (1,2)	$\oslash$	$\oslash$	$\oslash$	$\oslash$	$\oslash$			
Wall (vertical)	HI-QuadCore 2.0 FK DUAL EI 60 PV (1,2)	-	-	$\oslash$	$\oslash$	$\oslash$			
	HI-QuadCore 2.0 FK DUAL EI 90 PV (1,2)	-	-	-	$\oslash$	$\oslash$			
Self-supporting roof	HI-QuadCore 2.0 FK DUAL EI 30 TA (1)	-	$\oslash$	-	-	-			

(1) According to EN 13501-2:2016. See installation conditions.

(2) With extension of the application of results according to EXAP EN 15254-5:2018.



### Mechanical resistance and usage tables

HI-QuadCore 2.0 FK DUAL panels are suitable for use in walls, ceilings and external façade cladding, thanks to their high stiffness, impact resistance 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 in accordance with UNE-EN 14509:2014, both for SLS and ULS. Please contact us for suction loads.

			Pressure loads (daN/m²)										
	Δ			50	75	100	125	150	175	200			
L(m)		ess	80	6,67	5,60	4,82	3,86	3,22	2,77	2,42			
			ess	100	7,83	6,59	5,71	4,84	4,04	3,46	3,04		
	$\triangleleft$	ckn	150	9,48	7,75	6,71	6,00	5,48	5,07*	4,56*			
		Thị	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*			

#### **TWO SUPPORTS**

#### **MULTI SUPPORTED**

1			Pressure loads (daN/m²)										
m)			50	75	100	125	150	175	200				
		80	7,16	5,85	4,83	3,87	3,23	2,77	2,42				
"⊲	ess	100	8,07	6,59	5,65	4,83*	4,03*	3,45*	3,02*				
n)	ckne	150	9,49	7,61	6,70*	5,99*	5,47*	5,06*	4,56*				
7	Thi	200	10,97	8,95*	7,74*	6,93*	6,33*	5,81*	5,48*				
		230	9,18	7,49	6,47*	5,78*	5,28*	4,88*	4,57*				
								1 daN/m	<sup>2</sup> ≈ 1 kg/m <sup>2</sup>				

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.





High thermal performance panel for cold storage



### Quality and manufacturing standards

HI-QuadCore 2.0 FK DUAL panel certificates

CE marked according to EN 14509:2013.

### 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.

	Outo	loor e	environ	Indoor environment								
	Rural without pollution	Urba Indus		Marine	9		Resistan	ce	Healti Enviro	ny onments	and/	uo
		Moderated	Severe	Between 3 and 20 km	< 3 km (!)	Mixed	External corrosion category	∧∩	Low humidity	Medium humidity	Aggressive ( or very humid	<b>Resistance</b> Indoor corrosion category
E5001	⊗	$\otimes$	⊗	8	$\otimes$	۲	NA	NA	$\oslash$	⊗	$\otimes$	()
Polyester 25 µ	$\oslash$	$\oslash$	()	()	$\otimes$	$\otimes$	()	()	$\oslash$	⊗	Ai3 <sup>2</sup>	CPI2
Polyester plus 25 µ	$\oslash$	$\oslash$	()	$\odot$	$\otimes$	$\otimes$	RC3	RUV2	$\oslash$	$\oslash$	Ai3	CPI3
PVDF 35 µ	$\oslash$	$\oslash$	()	$\oslash$	()	()	RC4	RUV4	$\oslash$	$\oslash$	Ai3	CPI4
HDX 55 µ	$\oslash$	$\oslash$	$\odot$	$\oslash$	$\oslash$	()	RC5	RUV4	$\oslash$	$\oslash$	Ai3	CPI4
ΡΕΤ 50 μ	⊗	8	$\otimes$	8	$\otimes$	$\otimes$	NA	NA	$\oslash$	$\oslash$	Ai5	CPI5
INOX	⊗	$\otimes$	$\otimes$	$\otimes$	$\otimes$	$\otimes$	NA	NA	$\oslash$	$\oslash$	Ai5	Exc <sup>2</sup>
INOX PVC + PET	⊗	$\otimes$	$\otimes$	8	⊗	۲	NA	NA	$\oslash$	$\oslash$	Ai6	Exc <sup>2</sup>

Suitable coating 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.





High thermal performance panel for cold storage



### **Additional features**

#### Resistance to biological agents

HUURRE HI-QuadCore 2.0 FK DUAL panels, thanks to the closed structure of the insulating core, are resistant to attack by fungi, moulds and other deteriorating biologcal agents.

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 maintains its insulating capacity throughout its lifetime. It can therefore also be installed in adverse weather conditions.

#### Sustainability

Both the steel and the metallic and organic coatings of the panel 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 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.





High thermal performance panel for cold storage





Download the latest version by scanning the QR code or by clicking <u>here</u>

Huurre Ibérica S.A.U. Crta. C-65, km 16 E17244 Cassà de la Selva Girona (Spain) & (+34) 972 463 085 ₪ (+34) 972 463 208

☑ huurre@huurreiberica.com



Huurre Ibérica S.A.U. reserves the right to modify the contents of this document without any prior warning. Every effort has been made to ensure that the content of this publication is accurate, but Huurre Ibérica S.A.U. and its affiliated companies are not responsible for errors or information that may be misleading. Suggestions regarding the final use or application of the products or work methods are merely informative and Huurre Ibérica S.A.U. and its affiliated so not accept any responsibility in this regard.