

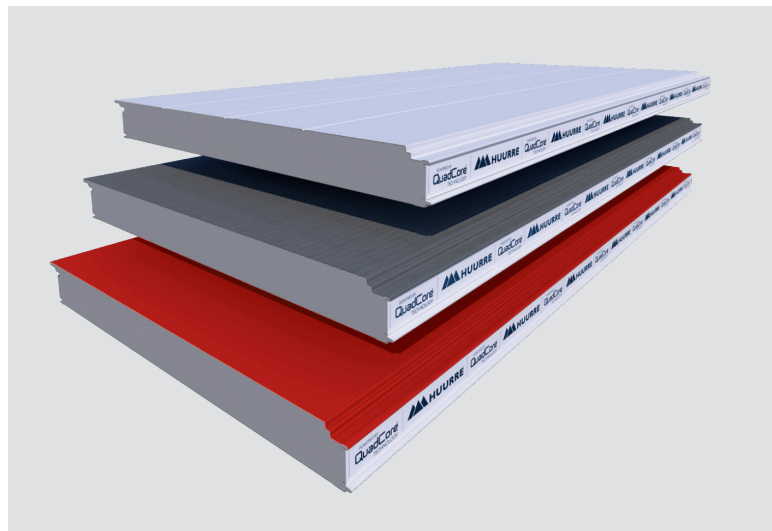
# HI-QuadCore® KS1000 AWP



High-performance architectural facade panel  
with new QuadCore® insulating core

POWERED BY  
**QuadCore™**  
TECHNOLOGY

- ▶ **High thermal efficiency.** The QuadCore® insulating core has a high thermal performance, with an aged thermal conductivity of just 0.019 W/mK.
- ▶ **High performance of mechanical resistance** and suitable for outdoor and indoor use.
- ▶ Lightweight enclosure with vertical or horizontal mounting possibilities.
- ▶ Exterior face with structural steel sheet with **flat, plank or micro-profiled finishes** and different high-durability coating options.
- ▶ No water absorption, maintains its performance throughout its useful life, and it is not affected by biological agents.



# HI-QuadCore® KS1000 AWP

## Architectural facade panel



### Description and application

Facade panel with hidden fixing and **QuadCore® rigid insulating core**, which provides **one of the highest thermal insulation on the market, high fire protection and great durability.**

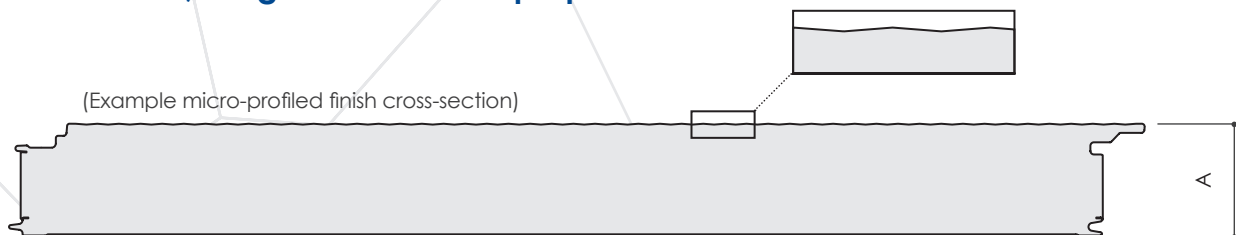
Great architectural finish with three options on the exterior face: **flat, plank and micro-profiled.**

Available in **various thicknesses of insulation** and different **coatings** and **colors of steel sheet.**

**Ideal for high-performance architectural facades** in industrial, residential, commercial buildings and sports facilities.



### Dimensions, weight and thermal properties



<b>Useful width</b>	1,000 mm						
<b>Manufacturing length</b>	2.0 to 13.5 m 13.5 to 18 m (special transport)						
<b>Reaction to fire classification</b>	EUROCLASS B-s1,d0 <sup>3</sup>						
<b>Declared thermal conductivity<sup>1</sup></b>	0.019 W/mK (considering an aged core)						
<b>Insulating core density</b>	40 ± 5 kg/m <sup>3</sup>						
<b>Insulating core thickness (A)</b>	60	80	100	120	140	160	(mm)
<b>Weight<sup>2</sup></b>	12.02	12.82	13.62	14.42	15.22	16.02	(kg/m <sup>2</sup> )
<b>Thermal transmittance<sup>1,2</sup></b>	0.35	0.25	0.20	0.16	0.14	0.12	(W/m <sup>2</sup> K)
<b>Thermal resistance<sup>2</sup></b>	3.27	4.32	5.38	6.43	7.48	8.53	(m <sup>2</sup> K/W)

NOTES: (1) Declared values corresponding to the HI-QuadCore F panel manufactured in Huurre.  
(2) For 0.5/0.6mm (int/ext) steel sheets.  
(3) Determined according to UNE-EN 13501-1:2009 (tested under the name "HI-QuadCore F")

# HI-QuadCore® KS1000 AWP

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### QuadCore® features



#### High thermal efficiency

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



#### High level of protection to fire

The QuadCore® 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® panels can enable reduce operational energy loss and reduces associated transport emissions.



#### High durability

By not absorbing moisture, the functional performance of the QuadCore core 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 standards.

#### Finishes

Manufacture with three joint reveal options and three finishes: flat, plank or micro-profiled (except for reveal 10). The panel can be manufactured with a variety of sheet metal coatings to ensure maximum durability depending on the environment and use conditions. Ask us about the available options.

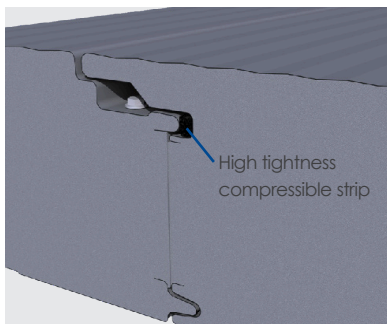
#### Insulating core

Rigid QuadCore foam, injected continuously, through a process that does not release HCFC-type gases.

#### Hidden joint

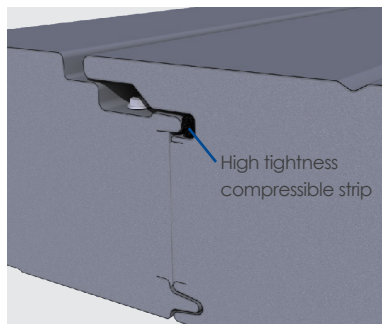
Tongue and groove joint that hides the fastening of the panel to the supporting structure and protects the screw head, increasing its durability. The joint on the outer face incorporates a sealing strip to optimize its tightness.

#### Microprofiled finish ▼



Reveal 0 (3 mm gap)

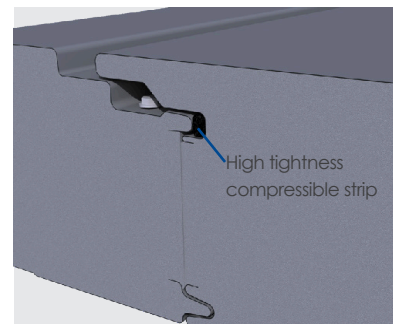
#### Plank finish ▼



Reveal 10 (13 mm gap)

Not available for microprofiled finish

#### Flat finish ▼



Reveal 20 (23 mm gap)

# HI-QuadCore® KS1000 AWP

## Architectural facade panel



### Tightness

The joint is certified by external laboratory without the need for additional silicone sealing (under the indicated permeability parameters). Its tightness has been proven by laboratory test (according to EN 12114:2000 and EN 12865:2002 standards).

**Air permeability:** 0.01 m<sup>3</sup>/h · m<sup>2</sup> at 50Pa. Values certified by external laboratory according to Standard 12114:2000.

**Water permeability\*:** CLASS A (waterproof joints up to pressures greater than 1,200Pa). Best classification according to EN 12865:2002, Standard, for demanding application with intense rain and strong winds.

(\*) Valid values for thicknesses equal to or greater than 80mm with reveal 0.

### Mechanical resistance and usage tables

The following tables indicate the maximum allowable distances between supports (m) as a function of the panel thickness (mm) and the characteristic uniformly distributed pressure load (without factoring) in (kN/m<sup>2</sup>). Tables calculated according to the European Standard UNE-EN 14509:2014 for both SLS and ULS.

#### TWO SUPPORTS

		Pressure loads (daN/m <sup>2</sup> )						
		50	75	100	125	150	175	200
Thickness	60	5.88	4.98	4.31	3.86	3.52	3.26	3.05
	80	7.23	6.11	5.29	4.73	4.32	4.00	3.74
	100	8.46	7.19	6.23	5.57	5.08	4.71	4.40
	120	9.49	7.79	6.75	6.03	5.51	5.10	4.77
	140	10.18	8.31	7.20	6.44	5.88	5.44	5.09
	160	10.77	8.80	7.62	6.81	6.22	5.76	5.39

		Suction loads (daN/m <sup>2</sup> )						
		50	75	100	125	150	175	200
Thickness	60	5.32	4.34	3.76	3.36	3.07	2.84	2.66
	80	6.19	5.06	4.38	3.92	3.58	3.31	3.10
	100	6.99	5.71	4.95	4.42	4.04	3.74	3.50
	120	7.29	5.95	5.16	4.61	4.21	3.90	3.65
	140	7.45	6.08	5.26	4.71	4.30	3.98	3.72
	160	7.50	6.13	5.31	4.75	4.33	4.01	3.75

L(m)

Thickness

Thickness

# HI-QuadCore® KS1000 AWP

## Architectural facade panel



### THREE SUPPORTS

		Pressure loads (daN/m <sup>2</sup> )							
		50	75	100	125	150	175	200	
L(m)	L(m)	60	4.68	4.05	3.64	3.35	3.13	2.96	2.82
		80	5.80	4.92	4.39	4.03	3.76	3.55	3.38
Thickness	100	6.79	5.73	5.10	4.67	4.36	4.11	3.91	
	120	7.36	6.24	5.57	5.12	4.79	4.53	4.32	
	140	7.80	6.62	5.92	5.44	5.09	4.82	4.60	
	160	8.10	6.95	6.22	5.72	5.36	5.07	4.84	
		Suction loads (daN/m <sup>2</sup> )							
		50	75	100	125	150	175	200	
L(m)	L(m)	60	5.32	4.34	3.76	3.36	3.07	2.84	2.66
		80	6.19	5.06	4.38	3.92	3.58	3.31	3.10
Thickness	100	6.99	5.71	4.95	4.42	4.04	3.74	3.50	
	120	7.29	5.95	5.16	4.61	4.21	3.90	3.65	
	140	7.45	6.08	5.26	4.71	4.30	3.98	3.72	
	160	7.50	6.13	5.31	4.75	4.33	4.01	3.75	

1 daN/m<sup>2</sup> ≈ 1 kp/m<sup>2</sup>

NOTES: No minimum support length taken into account.

Tables valid for light colored panels. Consult us in case of dark panels. Minimum outside temperature considered -10°C.

### 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					
	Rural without pollution	Urban/Industrial		Marine		Resistance		Non-aggressive environments		Aggressive and/or very humid environments	Resistance indoor corrosion category	
		Moderate	Severe	Between 3 and 20 km	< 3 km <sup>(1)</sup>	Mixed	Outdoor corrosion category	UV	Low humidity			Medium humidity
<b>HDS 35 μ</b>	✓	✓	⚠	✓	⚠	⚠	RC4	RUV4	✓	✓	Ai3	CPI4
<b>HDX 55 μ</b>	✓	✓	✓	✓	✓	⚠	RC5	RUV4	✓	✓	Ai3	CPI4

✓ Suitable coating ✗ Unsuitable coating ⚠ Check with HUURRE IBÉRICA (1) Please contact us for distances < 300 m.

Consult with our Technical Department for other coatings.

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### Quality and manufacturing standards

#### Guaranteed and certified quality

The HUURRE Comprehensive Quality Management System, which is in accordance to the ISO 9001 standard, is audited and certified by AENOR and IQNet (ER-0947/1998 certificate).

#### HI-QuadCore® KS1000 AWP panel certifications

CE marking according to EN 14509:2013 standard.



### Additional features

#### Resistance to biological agents

HUURRE's HI-QuadCore® KS1000 AWP panels, thanks to the closed structure of the insulating core, are resistant to attack by fungi, moulds and other deteriorating biological agents.

Therefore, they are suitable for applications that require a high degree of hygiene and healthy environment (agri-food sector, laboratories, etc.).

#### Water absorption

The QuadCore® insulating hybrid core does not absorb water, and maintains its insulating capacity throughout its useful life. Therefore, it can also 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.

The HUURRE Environmental Management System (ISO 14001) and the Health and Safety in the Workplace System (ISO 45001) are certified by AENOR and IQNet (certifications GA-2003/0091 and ES-SST-0035/2010 respectively).

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