

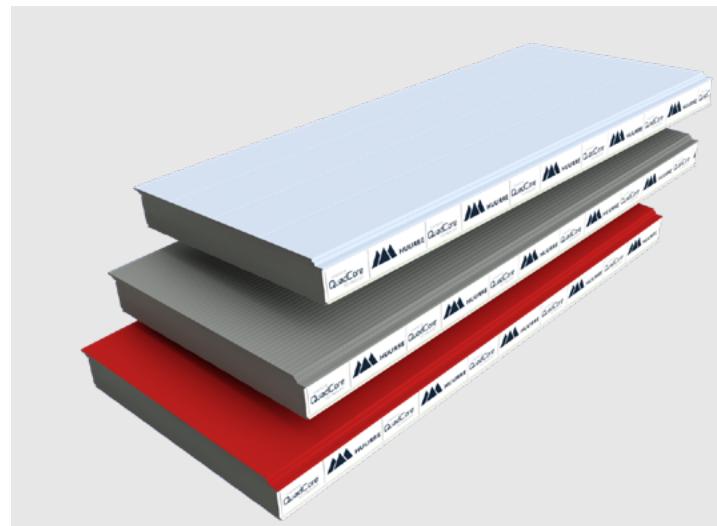
# HI-QuadCore 2.0 AWP

High-performance architectural façade  
panel with QuadCore® insulating core



POWERED BY  
**QuadCore™**  
TECHNOLOGY

- ▶ High thermal efficiency. The QuadCore® insulating core has excellent thermal performance, with an aged thermal conductivity of just 0.019 W/mK.
- ▶ High mechanical strength and suitable for both exterior and interior use.
- ▶ Tested according to BS 8414 and evaluated according to BR 135 classification criteria, which determine the fire performance of large-scale façade systems.
- ▶ Does not absorb water, maintaining its performance throughout its useful life, and is not affected by biological agents.



# HI-QuadCore 2.0 AWP

## Architectural façade panel



### Description and applications

Facade panel with concealed fastenings and QuadCore® rigid insulating core, providing one of the highest levels of thermal insulation on the market, high fire protection and excellent durability.

High-quality architectural finish with three options for the exterior surface: smooth, semi-smooth and micro-profiled.

Panel available in various thicknesses and different steel sheet coatings and colours.

Ideal for high-performance architectural façades in industrial, residential, commercial and sports facilities.



### Dimensions, mass and thermal performance



<b>Useful width</b>	1,000 mm					
<b>Manufacturing length</b>	2.0 a 13.5 m 13.5 a 18 m (special transport)					
<b>Declared thermal conductivity</b>	0.019 W/mK (considering aged core)					
<b>Espesor total (A)</b>	60	80	100	120	140	160 (mm)
<b>Mass<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 2.0 AWP panel manufactured in Huurre.

(2) For 0.5/0.6 mm sheets (int/ext).

# HI-QuadCore® 2.0 AWP

## Architectural façade panel



### The advantages of the QuadCore® core



#### High thermal efficiency

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



#### High fire protection

The QuadCore® core has efficient fire performance, providing greater protection in the event of a fire.



#### High environmental sustainability

The use of Huurre's QuadCore® range of panels reduces operational energy losses and lowers transport emissions into the environment.



#### High durability

As it does not absorb moisture, the panel's performance does not diminish over time, providing high durability.

### Fire safety

#### Fire reaction classification

##### EUROCLASS B-s1,d0

**B:** Very limited contribution to the fire and does not lead to flashover<sup>(1)</sup>

**s1:** Reducida o ninguna generación de humos

**d0:** No hay gotas / partículas inflamadas

(1) Best possible classification for an organic material.

Reaction to fire determined in accordance with standard UNE-EN 13501-1:2019.

#### Certified fire resistance<sup>(1)</sup> (min)

Fire resistance table, prepared in accordance with classification standard EN 13501-2:2023, with no need for additional sealing at the joint, unless specifically indicated (\*). Consult the specific installation conditions for each solution.

Panel thickness (mm)	Construction unit (panel orientation)	Fire resistance classification	Integrity (E) / thermal insulation (I)	Maximum span (m)
100-160	Wall (Panel in vertical position)	EI 20	25/25	4

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### BS 8414 test

The HI-QuadCore® 2.0 AWP panel has successfully passed the large-scale test in accordance with BS 8414-2: 2020 (Fire performance of external cladding systems. Test method for non-load-bearing external cladding systems fixed to, and supported by, a structural steel frame), in accordance with the performance criteria set out in BR 135 3rd edition (2013) (Fire performance of external thermal insulation for multi-storey building walls. Test passed with 100 mm thick panel and horizontal installation).

Please refer to the specific installation conditions for this certification.



## Components

### Faces on walls

Cold-formed sheet metal from S220GD structural steel coil, certified quality, hot-dip galvanised in accordance with EN 10346 and EN 10169 standards.

### Insulating core

QuadCore® rigid foam with microcells, continuously injected using a HCFC-free process.

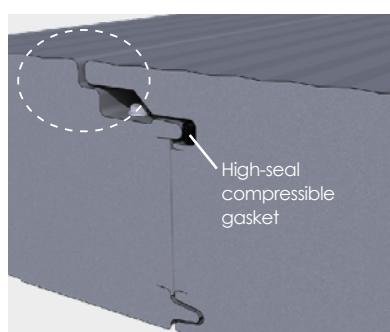
### Hidden board

Tongue-and-groove joint that conceals the panel's attachment to the supporting structure, protects the screw head and increases its durability. The tongue-and-groove joint on the outer face of the panel incorporates a compressible seal to optimise its watertightness.

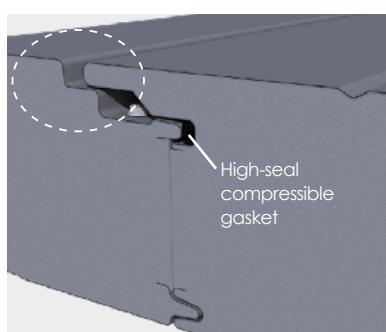


### Finishes

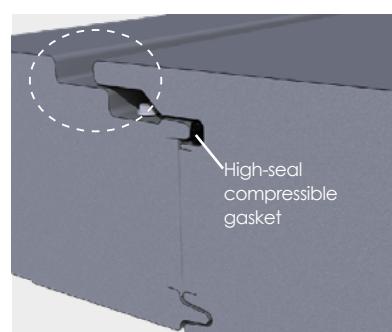
Manufactured with three joint reveal options and three finish options: smooth, semi-smooth or micro-profiled (except reveal 10) and various sheet metal coating options to ensure maximum durability depending on the environment and intended conditions of use. Please enquire about the available options.



Reveal 0 (3 mm wound)



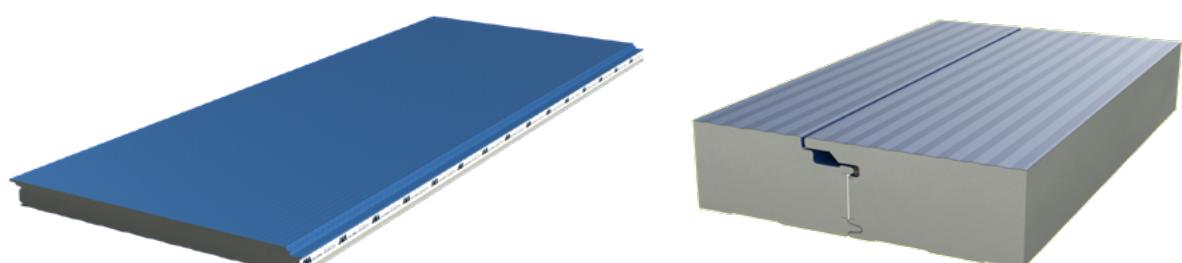
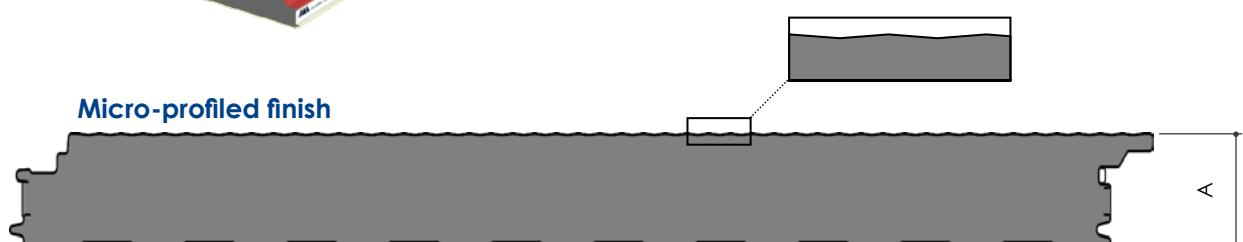
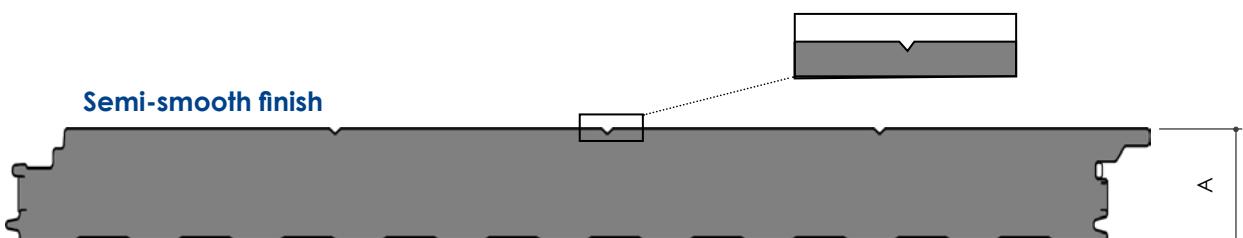
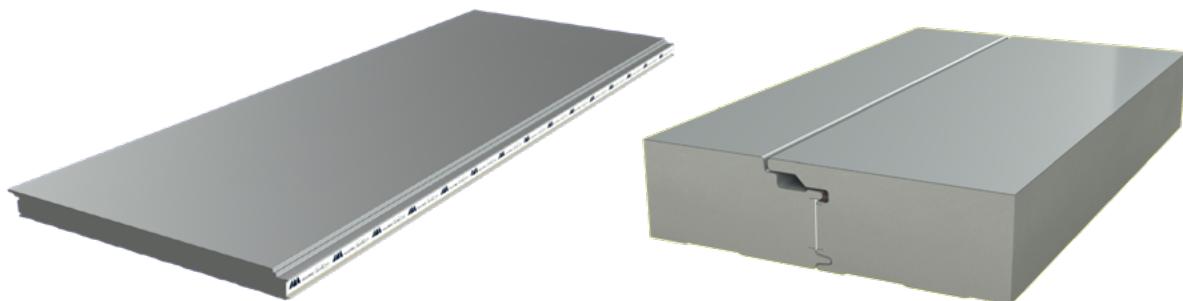
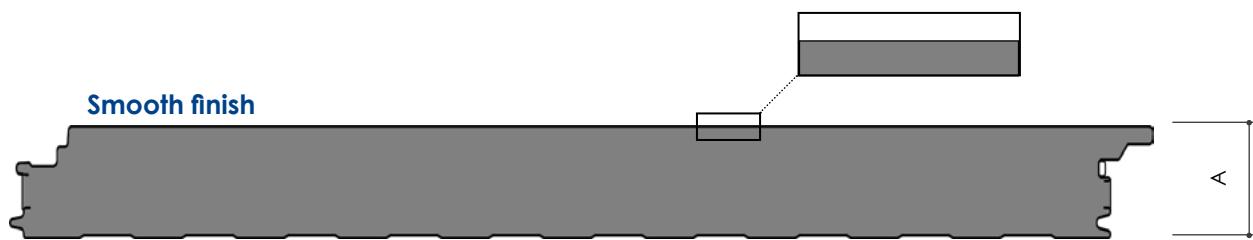
Reveal 10 (13 mm wound)  
Not available in micro-profiled finish



Reveal 20 (23 mm wound)

# HI-QuadCore 2.0 AWP

## Architectural façade panel



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### Mechanical resistance and usage tables

The following tables indicate the maximum permissible distances between supports (m) depending on the panel thickness (mm) and the characteristic pressure or suction load (without increase) evenly distributed (daN/m<sup>2</sup>). Tables calculated in accordance with Standard EN 14509:2013, for both ELS and ELU. Please consult our technical department for further information.

#### TWO SUPPORTS

Thickness L(m)	Pressure loads (daN/m <sup>2</sup> )						
	50	75	100	125	150	175	200
60	5,68	4,84	4,25	3,81	3,48	3,13	2,74
80	7,14	6,03	5,31	4,79	4,38	4,05	3,72*
100	8,42	7,13	6,29	5,68	5,21*	4,83*	4,51*
120	9,62	8,16	7,21	6,47*	5,91*	5,47*	5,12*
140	10,75	8,95	7,75	6,93*	6,33*	5,86*	5,48*
160	11,58	9,45	8,19*	7,32*	6,68*	6,19*	5,79*

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

#### TRES APOYOS

Thickness L(m)	Pressure loads (daN/m <sup>2</sup> )						
	50	75	100	125	150	175	200
60	4,34	3,85	3,54	3,32*	3,12*	2,96*	2,74*
80	5,81	5,03	4,51	4,16*	3,90*	3,70*	3,53*
100	7,17	6,08	5,43*	4,99*	4,67*	4,41*	4,21*
120	7,52	6,40	5,73*	5,27*	4,94*	4,68*	4,46*
140	7,53	6,58	5,93*	5,47*	5,13*	4,87*	4,65*
160	7,41	6,54	6,01*	5,60*	5,26*	4,99*	4,78*

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

NOTES: A minimum support width is not taken into account.

(\*) Support width > 50 mm.

Tables valid for light-coloured panels. Please consult us in the case of dark panels.

Minimum outdoor temperature considered -10°C.

# HI-QuadCore 2.0 AWP

## Architectural façade panel



### TWO SUPPORTS

Thickness	Suction loads (daN/m <sup>2</sup> )						
	50	75	100	125	150	175	200
60	4,94	4,03	3,49	3,12	2,85	2,64	2,47
80	5,69	4,65	4,02	3,60	3,29	3,04	2,85
100	6,33	5,17	4,48	4,00	3,66	3,38	3,17
120	7,33	5,99	5,18	4,64	4,23	3,92	3,67
140	8,32	6,79	5,88	5,26	4,80	4,45	4,16
160	9,30	7,59	6,58	5,88	5,37	4,97	4,65

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

### THREE SUPPORTS

Thickness	Suction loads (daN/m <sup>2</sup> )						
	50	75	100	125	150	175	200
60	4,94	4,03	3,49	3,12	2,85	2,64	2,47
80	5,69	4,65	4,02	3,60	3,29	3,04	2,85
100	6,33	5,17	4,48	4,00	3,66	3,38	3,17
120	7,33	5,99	5,18	4,64	4,23	3,92	3,67
140	8,32	6,79	5,88	5,26	4,80	4,45	4,16
160	9,30	7,59	6,58	5,88	5,37	4,97	4,65

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

NOTES: A minimum support width is not taken into account.

Tables valid for light-coloured panels. Please consult us in the case of dark panels.

Minimum outside temperature considered -10°C.

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## Architectural façade panel

### Watertightness

The joint is certified by an external laboratory without the need for additional silicone sealing (under the indicated permeability parameters). Its watertightness has been accredited through laboratory testing (in accordance with standards EN 14509:2014, EN 12114:2000 and EN 12865:2002).

**Air permeability:** 0.01 m<sup>3</sup>/h·m<sup>2</sup> at 50Pa. Values certified by an external laboratory in accordance with Standard 12114:2000, installed vertically.

**Water permeability\***: CLASS A (watertight joint up to pressures exceeding 1,200 Pa), installed in a vertical orientation. Best classification according to Standard EN 12865:2002, for demanding applications with heavy rain and strong winds.

(\*) Values valid for thicknesses equal to or greater than 80 mm with a reveal of 0.

### Environmental product declaration

HI-QuadCore 2.0 AWP panels have an environmental product declaration in accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021.



### Acoustic properties

According to CTE DB-HR	Global weighted sound reduction index A, R <sub>A</sub>	23,7 dBA
According to UNE-EN ISO 717-1:2021 standard	Weighted sound reduction index R <sub>w</sub> (C;Ctr)	25 (-3; -4) dB
According to CTE DB-HR	Overall sound reduction index, weighted A, for dominant external noise from motor vehicles, R <sub>atr</sub>	21,3 dBA

### Quality and manufacturing standards

#### HI-QuadCore 2.0 AWP panel certificates



CE marking in accordance with standard EN 14509:2013.

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## Architectural façade panel

### Additional features

#### Resistance to biological agents

HUURRE's HI-QuadCore 2.0 AWP panels, thanks to the closed structure of the insulating core, are resistant to attacks from fungi, mould and other deteriorating biological agents.

They are therefore suitable for applications that require a high degree of hygiene and health (agri-food sector, laboratories, etc.).

#### Water absorption

The QuadCore® hybrid insulation core does not absorb water and maintains its insulating capacity throughout its entire service life. This means it can also be installed in adverse weather conditions.

#### Sustainability

Both the steel and the metal and organic coatings on the panel are free of SVHCs (Substances of Very High Concern), in accordance 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 QuadCore® insulating core contains 7.90% post-

consumer recycled plastic (rPET) in its formulation.

This is equivalent to the reuse of approximately 105 1.5-litre rPET plastic bottles per cubic metre ( $m^3$ ) of insulating core manufactured, based on an average weight of 31 g per standard non-reusable bottle.



#### Guaranteed and certified quality

HUURRE's Comprehensive 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 Occupational Health and Safety System, in accordance with ISO 45001, are certified by AENOR and IQNet (certifications 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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