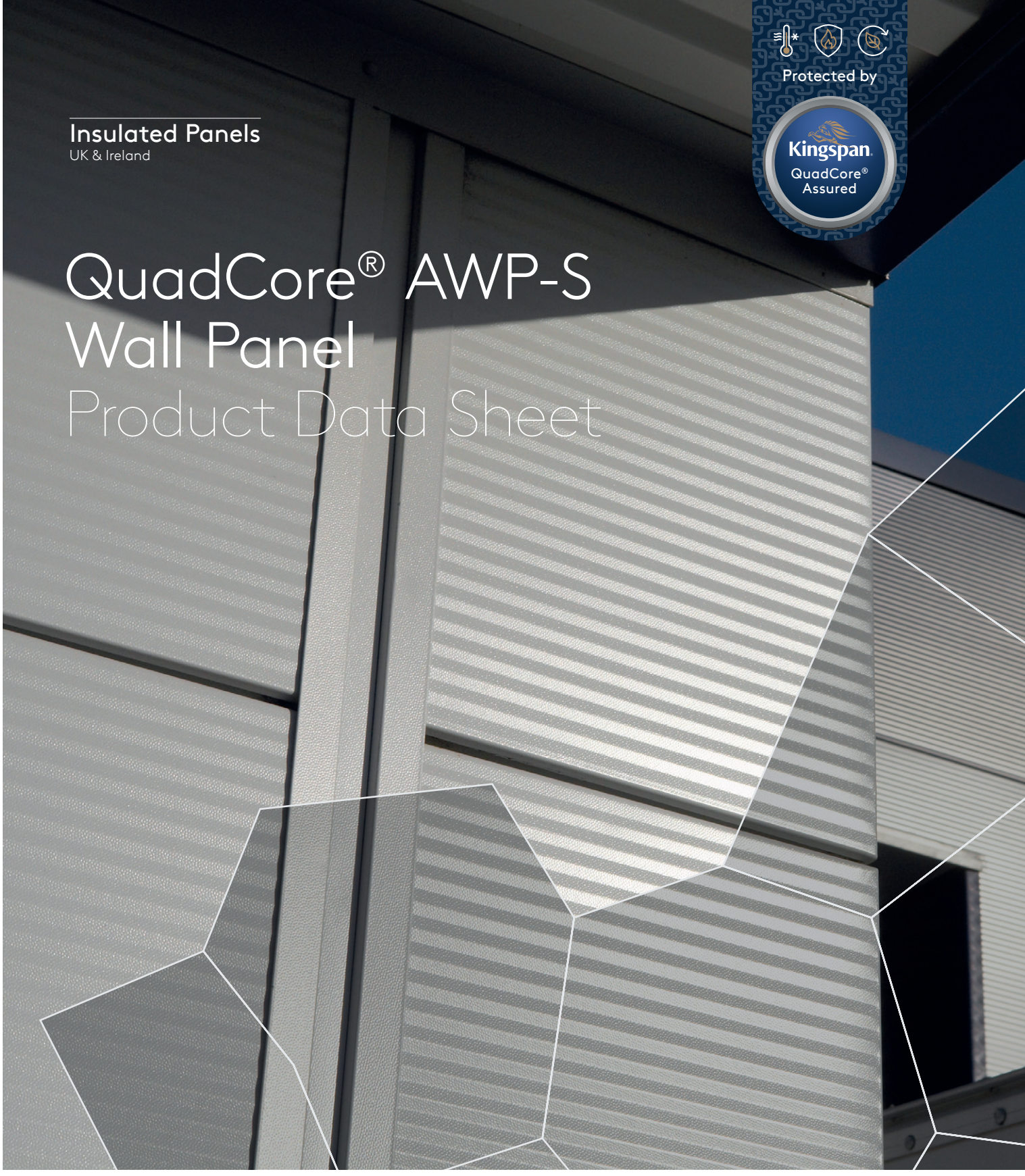


Insulated Panels
UK & Ireland

Protected by Kingspan QuadCore® Assured

QuadCore® AWP-S Wall Panel

Product Data Sheet

POWERED BY QuadCore® TECHNOLOGY

Kingspan®

Product Data

QuadCore® AWP-S Panel Range

The QuadCore® AWP-S panel range is available in seven distinct profiles; far more than the two or three styles previously available to architects on the market.

Profile Options

Convex KS600/900/1000 CX

Euro-Box KS600/900/1000 EB

Mini-Micro KS600/900/1000 MM

Micro-Rib KS600/900/1000 MR

Plank KS600/900/1000 PL

Tramline KS1000 TL

Wave KS600/900/1000 WV

Product Data

Applications

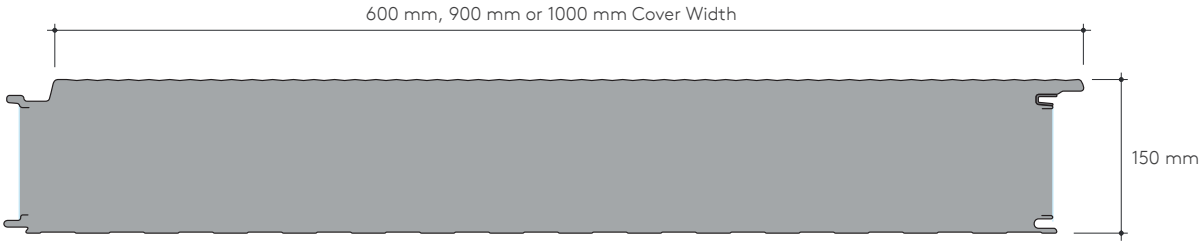
QuadCore® AWP-S is a range of insulated wall panels that are characterised by a high fire resistance. These panels achieve this without additional installation requirements.

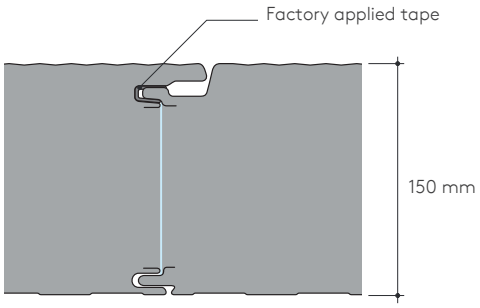
Available Lengths

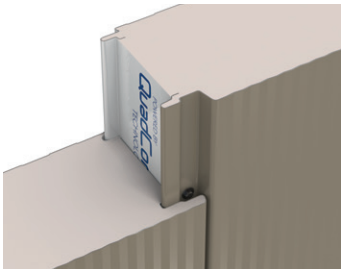
Standard Lengths (m)	1.2 – 14.5
Longer Lengths (non-standard) (m)	14.5 – 18.3
Shorter Lengths (non-standard) (m)	Below 1.2

Note: Additional costs and transport restrictions may apply for non-standard lengths. All lengths may change for export (outside of the UK & Ireland).

KS600/900/1000 AWP-S







Dimensions, Weight & Thermal Performance

Convex, Euro-Box, Mini-Micro, Micro-Rib, Plank, Tramline and Wave	
Core Thickness (mm)	**150**
U-Value (W/m²K)	0.13
Weight (kg/m²)	18

The QuadCore® insulation used in QuadCore® AWP-S wall panel has a Thermal Conductivity (λ) of 0.019 W/m.K

QuadCore® AWP-S wall panel has a Thermal Transmittance (U-Value), calculated using the method required by the Building Regulations Part L2 (England & Wales), Building Standards Section 6 (Scotland), Part L (Republic of Ireland) and Part F2 (Northern Ireland).

Insulation Core

QuadCore® AWP-S Wall Panel is manufactured with an HCFC, CFC and HFC free QuadCore® insulation core.

POWERED BY QuadCore® TECHNOLOGY

Product Data

Certification and Testing

Reaction to Fire

QuadCore® AWP-S wall panel is classified B-s1,d0, when tested on the internal face of the product, according to the European Reaction to Fire classification system (Euroclasses) EN 13501-1: 2018 under the certified name KS1000AWP-S 150 mm when using the following internal liners:

- CLEAN*safe* 15, CLEAN*safe* 25, CLEAN*safe* 55, CLEAN*safe* 120 and AQUA*safe* 55.

Please contact Kingspan Tech-eXchange for information relating to the external face.

Fire Resistance

The QuadCore® AWP-S fire resistance classifications to EN 13501-2 are subject to orientation, method of assembly and steel coating. Please contact Kingspan Tech-eXchange for project specific details.

Direction	Orientation	Span Distance	Fire Integrity	Fire Insulation
Inside to outside	Vertical	6000 mm	60 mins	60 mins
Outside to inside	Vertical	4000 mm	60 mins	60 mins
Inside to outside	Horizontal	4000 mm	60 mins	60 mins

Environmental

Kingspan Insulated Panels produced in the UK and Ireland are certified to BES 6001 (Framework Standard for the Responsible Sourcing of Construction Products) 'Good'.

In addition, facilities located in Kingscourt, Holywell and Sherburn generate renewable energy onsite which contributes to that sites energy mix.

Recycled content calculations are available for all QuadCore® products via technical services. Kingspan insulated panels can directly contribute to BREEAM® / LEED® credits.

Air Leakage

An air leakage rate of 3m³/hr/m² at 50Pa or less can be achieved when using Kingspan insulated roof and wall panels.

For information on detailing required to achieve lower air leakage rates please contact Kingspan Tech-eXchange.

Acoustic

Sound Reduction Index (SRI)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
SRI (dB)	13.9	19.1	20.6	24.5	21.4	34.2	47.0	53.2

QuadCore® AWP-S wall panel has a single figure weighted sound reduction Rw = 26dB. Results are based on panels of similar profile and core material.

Materials

Substrate

Metallic protected steel to BS EN 10346: 2015.

Please contact Kingspan Tech-eXchange for information on other substrates.

Coatings – External Weather Sheet

- Kingspan Spectrum: Consists of a coated semi-gloss finish with slight granular effect.

For Reaction to Fire performance of external weather sheets please contact Kingspan Tech-eXchange.

Coatings – Internal Liner Sheet

- Kingspan CLEAN*safe* 15: The coating has been developed for use as the internal lining of insulated panels. Standard colour is "bright white" with an easily cleaned surface.
- Kingspan CLEAN*safe* 120: The coating has been developed for use as the internal lining of insulated panels where a high level of cleanliness and hygiene is required, and the panels are to be cleaned down on a regular basis.
- Kingspan AQUA*safe* 55: The coating has been developed for use as the internal lining of insulated panels to swimming pool internal environments.

For reaction to fire performance of panels with above internal liners please see Certification and Testing section.

Product Tolerances

Cut to Length	± 5mm
Cover Width	± 2mm
Thickness (Core ≤ 100mm)	± 2mm
Thickness (Core > 100mm)	± 2%
End Squareness	± 3mm

Seals

Factory applied side joint seals. All side joints have a factory applied seal fitted into the groove to automatically seal the joint between panels.

Product Data

Quality & Durability

QuadCore® AWP-S wall panels are manufactured from the highest quality materials, using state of the art production equipment to rigorous quality control standards, complying with BS EN ISO 9001 standard, ensuring long term reliability and service life. The panels are also being manufactured under Environmental Management System Certification BS EN ISO 14001, Energy Management System Certification BS EN ISO 50001 and Occupational Health and Safety Certification BS EN ISO 45001 and Compliance Management Systems BS EN ISO 37301.

QuadCore® AWP-S wall panel is CE marked to BS EN 14509: 2013.

CE

Warranty

QuadCore® Assured Panel Warranty

- 25 years thermal performance
- 25 years fire performance
- 25 years structural performance
- 25 years environmental performance
- Up to 30 years coating performance

Packing

QuadCore® AWP-S wall panel is stacked weather sheet to weather sheet (to minimise pack height). The top and sides are protected by either cardboard or polystyrene and spiral wrap stretch polyfilm. The number of panels in a pack will vary depending on thickness.

Number of Panels per Package (max.)	
>1.5m	5
<1.5m	8
>1.0m	12

Note: Applies to UK pack sizes. Please contact Kingspan Tech-eXchange for export information.

Delivery

All deliveries (unless indicated otherwise) are by road transport to project site. Off-loading is the responsibility of the client.

Sea Freight

Fully timber crated packs are available on projects requiring delivery by sea freight shipping, at additional costs. Alternatively, steel containers can be used. Special loading charges apply.

Site Installation Procedure

Site assembly instructions are available from Kingspan Technical Services.

Product Data: Load / Span Tables

Load / span tables to be compared against calculated characteristic (i.e. unfactored) wind load values.

Single Span

Core Thickness (mm)	Load Type	Uniformly distributed imposed load (kN/m²)																		
		Span (m)																		
		0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2
150	Pressure	29.44	22.08	17.66	14.72	12.62	11.04	9.81	8.83	8.03	7.36	6.79	6.31	5.89	5.52	5.19	4.91	4.54	4.10	3.72
	Suction	29.44	22.08	17.66	14.72	12.62	11.04	9.81	8.83	8.03	7.36	6.79	6.31	5.89	5.52	4.89	4.36	3.92	3.53	3.21

Core Thickness (mm)	Load Type	Uniformly distributed imposed load (kN/m²)																		
		Span (m)																		
		4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0
150	Pressure	3.39	3.10	2.84	2.62	2.42	2.25	2.09	1.95	1.82	1.71	1.60	1.50	1.42	1.34	1.26	1.20	1.13	1.08	1.02
	Suction	2.92	2.67	2.45	2.26	2.09	1.94	1.80	1.68	1.57	1.47	1.38	1.30	1.22	1.15	1.09	1.03	0.98	0.93	0.88

1 Values have been calculated using the method described in BS EN 14509: 2013, for dark coloured panels.
2 The following deflection limits have been used:
   – Short term pressure loading $^{L}/_{100}$.
   – Short term suction loading $^{L}/_{100}$.
3 All panel thicknesses have been calculated with a minimum end support width of 50 mm and intermediate support width of 50 mm. Larger support widths are possible.
4 The actual wind suction resisted by the panel is dependent upon the number of fasteners and the material of the supporting element.
5 The fastener calculation should be carried out in accordance with the appropriate standards.
6 For intermediate values linear interpolation may be used.
7 The allowable steelwork tolerance between bearing planes of adjacent supports is ± 5 mm.

Product Data: Load / Span Tables

Load / span tables to be compared against calculated characteristic (i.e. unfactored) wind load values.

Double Span

Core Thickness (mm)	Load Type	Uniformly distributed imposed load (kN/m²)																		
		Span (m)																		
		0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2
150	Pressure	29.44	22.08	17.66	14.72	12.62	10.93	9.58	8.51	7.66	6.95	6.37	5.87	5.45	5.09	4.77	4.49	4.24	4.01	3.72
	Suction	29.44	22.08	17.66	14.46	12.14	10.43	9.12	8.10	7.29	6.62	6.07	5.60	5.20	4.86	4.56	4.30	3.92	3.53	3.21

Core Thickness (mm)	Load Type	Uniformly distributed imposed load (kN/m²)																		
		Span (m)																		
		4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0
150	Pressure	3.39	3.10	2.84	2.62	2.42	2.25	2.09	1.95	1.82	1.71	1.60	1.50	1.42	1.34	1.26	1.20	1.13	1.08	1.02
	Suction	2.92	2.67	2.45	2.26	2.09	1.94	1.80	1.68	1.57	1.47	1.38	1.30	1.22	1.15	1.09	1.03	0.98	0.93	0.88

1 Values have been calculated using the method described in BS EN 14509: 2013, for dark coloured panels.
2 The following deflection limits have been used:
   - Short term pressure loading $^{L}/_{100}$.
   - Short term suction loading $^{L}/_{100}$.
3 All panel thicknesses have been calculated with a minimum end support width of 50 mm and intermediate support width of 50 mm. Larger support widths are possible.
4 The actual wind suction resisted by the panel is dependent upon the number of fasteners and the material of the supporting element.
5 The fastener calculation should be carried out in accordance with the appropriate standards.
6 For intermediate values linear interpolation may be used.
7 The allowable steelwork tolerance between bearing planes of adjacent supports is ± 5 mm.

Product Data: Load / Span Tables

Load / span tables to be compared against calculated characteristic (i.e. unfactored) wind load values.

Triple Span

Core Thickness (mm)	Load Type	Uniformly distributed imposed load (kN/m²)																		
		Span (m)																		
		0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2
150	Pressure	29.44	22.08	17.66	14.72	12.62	11.04	9.81	8.83	8.03	7.36	6.79	6.31	5.89	5.52	5.19	4.91	4.54	4.10	3.72
	Suction	29.44	22.08	17.66	14.72	12.62	11.04	9.81	8.83	8.03	7.36	6.79	6.31	5.89	5.52	4.89	4.36	3.92	3.53	3.21

Core Thickness (mm)	Load Type	Uniformly distributed imposed load (kN/m²)																		
		Span (m)																		
		4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0
150	Pressure	3.39	3.10	2.84	2.62	2.42	2.25	2.09	1.95	1.82	1.71	1.60	1.50	1.42	1.34	1.26	1.20	1.13	1.08	1.02
	Suction	2.92	2.67	2.45	2.26	2.09	1.94	1.80	1.68	1.57	1.47	1.38	1.30	1.22	1.15	1.09	1.03	0.98	0.93	0.88

1 Values have been calculated using the method described in BS EN 14509: 2013, for dark coloured panels.
2 The following deflection limits have been used:
   – Short term pressure loading $^{L}/_{100}$.
   – Short term suction loading $^{L}/_{100}$.
3 All panel thicknesses have been calculated with a minimum end support width of 50 mm and intermediate support width of 50 mm. Larger support widths are possible.
4 The actual wind suction resisted by the panel is dependent upon the number of fasteners and the material of the supporting element.
5 The fastener calculation should be carried out in accordance with the appropriate standards.
6 For intermediate values linear interpolation may be used.
7 The allowable steelwork tolerance between bearing planes of adjacent supports is ± 5 mm.

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