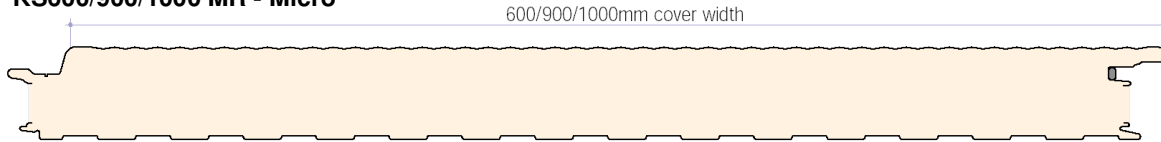


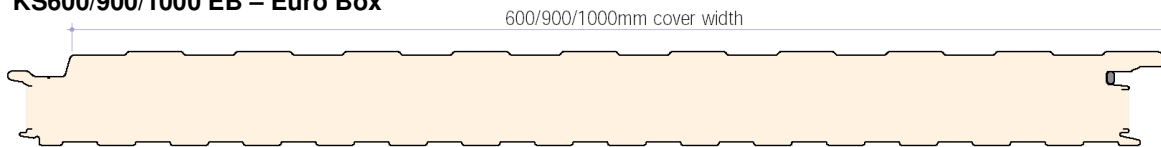
Product Data Sheet

Product: Architectural Wall Panel

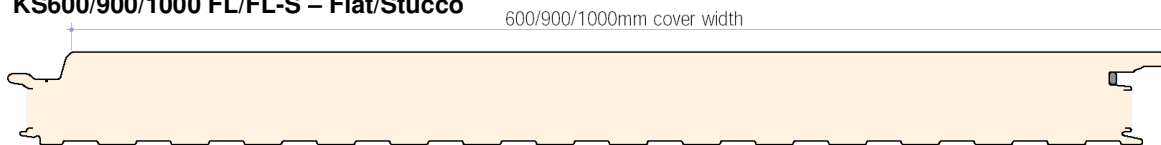
KS600/900/1000 MR - Micro



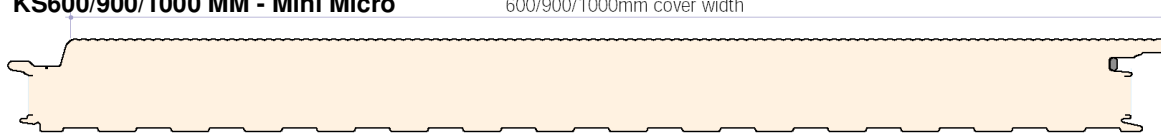
KS600/900/1000 EB - Euro Box



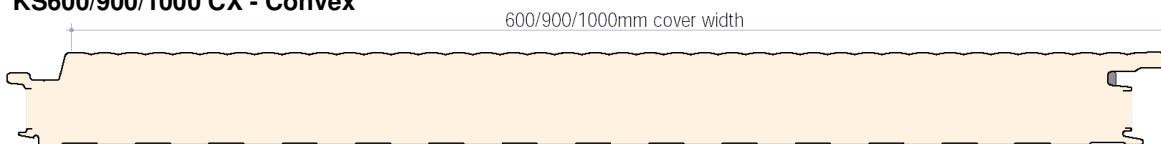
KS600/900/1000 FL/FL-S - Flat/Stucco



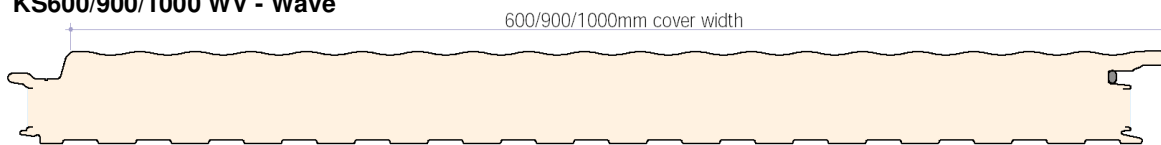
KS600/900/1000 MM - Mini Micro



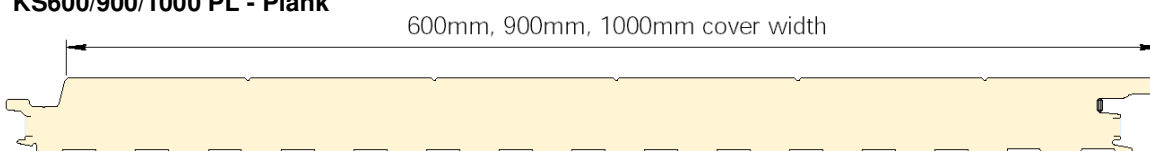
KS600/900/1000 CX - Convex



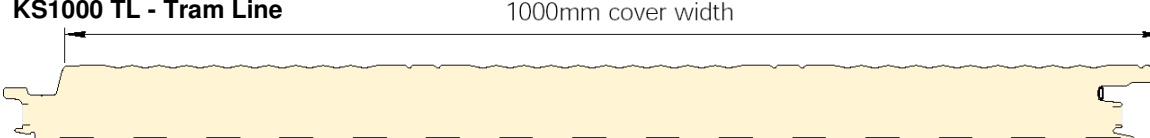
KS600/900/1000 WV - Wave



KS600/900/1000 PL - Plank



KS1000 TL - Tram Line



APPLICATION

The KS600/900/1000 Architectural Wall Panel System is a secret fix wall panel system that can be laid horizontally or vertically. Suitable for all building applications except where there are low temperature internal conditions.

AVAILABLE LENGTHS

- Standard lengths 1.8 to 12m.
- Longer lengths(non-standard) 17m
- Shorter Length (non-standard) below 1.8m

Please note: additional costs and transport restrictions may apply for non-standard lengths. All lengths may change for export (outside of UK).

DIMENSIONS & WEIGHT

Core Thickness (mm)	45	60	70	80	100	120	140	150
Weight kg/m ² 0.5/0.4 steel	9.7	10.3	10.7	11.1	11.9	12.7	13.5	13.9

PRODUCT TOLERANCES

Length	-5mm	+5mm
Width	-2mm	+2mm
Thickness	-2mm	+2mm
End Squareness	-3mm	+3mm
Flatness (per metre)	-2mm	+2mm

MATERIALS

Substrate

Kingspan XL Forte™, Kingspan Spectrum®, Kingspan AquaSafe, and Kingspan CleanSafe:

Material S220GD+ZA hot-dip zinc/aluminium Galfan coated steel to BS EN10346: 2009 Standard external sheet thickness 0.5mm, standard internal sheet thickness 0.4mm.

Bright White Polyester:

Material Hot dip zinc coated to BS EN 10346: 2009, Standard internal steel thickness 0.4mm.

Stainless Steel

Austenitic Grade 304 stainless steel to BS EN 10088-2, thickness 0.4mm.

Aluminium

For aluminium options please contact Kingspan envirocare Technical Services.

Coatings - External Weather Sheet

Kingspan XL Forte™

Consists of multi-layer organic coating, embossed with a traditional leather-grain finish.

Kingspan Spectrum®

Consists of a coated semi-gloss finish with slight granular effect. (Flat panel must be Stucco Embossed).

Coatings - Internal Liner Sheet

Bright White Polyester:

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 AquaSafe:

The coating has been developed for use as the internal lining of insulated panels to suit high humidity internal environments (class 5 as defined by the Building Regulations).

Kingspan CleanSafe:

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.



Stainless Steel

The stainless steel liner has been developed for use as the internal lining of insulated panels in buildings with a very aggressive/corrosive internal environment

INSULATION CORE

Polyisocyanurate (PIR): EcoSafe LPCB certificated PIR formulation / FM approved PIR formulation.

ENVIRONMENTAL

Kingspan Architectural Wall Panels have a Green Guide A+ rating as per the BRE Global "The Green Guide To Specification", Green Guide 2008 ratings, Element no. 806600001.

SEALS

Factory Applied Side Joint Seal

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

PERFORMANCE

THERMAL INSULATION

Kingspan Architectural Wall Panels have a thermal transmittance (U value), calculated using the method required by the Building Regulations Part L2 (England & Wales) and Building Standards Section 6 (Scotland).

Core Thickness (mm)	45	60	70	80	100	120	140	150
U value (W/m²K)	0.52	0.35	0.30	0.26	0.21	0.18	0.15	0.14

BIOLOGICAL

Kingspan panels are normally immune to attack from mould, fungi, mildew and vermin. No urea formaldehyde is used in the construction, and the panels are not considered deleterious.

FIRE

The external and internal faces of the panel to be Class 0 in accordance with the Building Regulations when tested to BS476: Parts 6: 1989 and Part 7: 1987.

Loss Prevention Certification (LPCB) certified to LPS 1181 Grade EXT – B and FM approval to FMRC 4880 Class 1 fire classification, unlimited height, for roof applications. The Kingspan KS1000AWP Wall Panels can be used to achieve periods of fire resistance (EXT-A), for further information please contact Kingspan envirocare Technical Services.

ACOUSTIC

Sound Reduction Index (SRI)

Frequency Hz	63	125	250	500	1k	2k	4k	8k
SRI dB	20	15	17	23	18	25	40	46

All Kingspan Architectural Wall Panels have a single figure weighted sound reduction $R_w = 24\text{dB}$

AIR LEAKAGE

Overall air leakage for complete envelope $5\text{m}^3/\text{hr}/\text{m}^2$ at 50Pa (when Kingspan panels are used for roof and wall). Please note: lower air leakage rates can be achieved subject to panel specification.



QUALITY & DURABILITY

Kingspan Architectural Wall Panels are manufactured from the highest quality materials, using state of the art production equipment to rigorous quality control standards, complying with ISO 9001 standard, ensuring long term reliability and service life. The panel has also been manufactured under Environmental Management System Certification ISO 14001. Compliant to BS OHSAS 18001 Occupational Health and Safety.

GUARANTEES

Kingspan TOTAL Panel Guarantee covering the structural and thermal performance for a period of up to 25 years and Kingspan coating guarantee for a period of up to 40 years (subject to project specific information).

PACKING

Kingspan Architectural Wall Panels are stacked with weather sheet upward. Removable hot melt adhesive is laid between each panel. The top, bottom, sides and ends are protected with polystyrene and timber packing and the entire pack is wrapped in polythene. The number of panels in each pack depends on panel thickness/length.

Core Thickness (mm)	45	60	70	80	100	120	140	150
No. of panels in pack	25	18	16	13	11	9	6	5

SEA FREIGHT

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

DELIVERY

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

SITE INSTALLATION PROCEDURE

Site assembly instructions are available from Kingspan envirocare Technical Services

STRUCTURAL

Unfactored Load/Span Table (use calculated design wind-load values unfactored)

Single Span Condition												
Panel Thickness mm	Load Type	Uniformly distributed loads kN/m ² Span L in metres										
		2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0
45	Pressure	2.71	2.19	1.86	1.53	1.31	1.09	0.94	0.79	0.69	0.59	0.52
	Suction	2.32	1.83	1.53	1.22	1.03	0.83	0.69	0.54	0.44	0.33	0.27
60	Pressure	4.05	3.35	2.89	2.42	2.11	1.79	1.57	1.35	1.19	1.03	0.91
	Suction	3.63	2.95	2.52	2.08	1.79	1.49	1.29	1.08	0.94	0.79	0.69
70	Pressure	4.83	4.12	3.58	3.03	2.66	2.28	2.01	1.74	1.55	1.35	1.21
	Suction	4.43	3.60	3.09	2.58	2.26	1.94	1.70	1.46	1.28	1.10	0.97
80	Pressure	5.39	4.85	4.26	3.64	3.21	2.78	2.47	2.15	1.92	1.69	1.52
	Suction	4.98	4.03	3.46	2.88	2.53	2.17	1.93	1.69	1.52	1.35	1.23
100	Pressure	5.39	4.85	4.48	4.10	3.83	3.56	3.35	2.96	2.67	2.37	2.15
	Suction	5.36	4.78	4.10	3.42	3.00	2.57	2.29	2.00	1.80	1.60	1.46
120	Pressure	5.39	4.85	4.48	4.10	3.83	3.56	3.35	2.96	2.67	2.37	2.15
	Suction	5.36	4.78	4.10	3.42	3.00	2.57	2.29	2.00	1.80	1.60	1.46
140	Pressure	5.39	4.85	4.48	4.10	3.83	3.56	3.35	2.96	2.67	2.37	2.15
	Suction	5.36	4.78	4.10	3.42	3.00	2.57	2.29	2.00	1.80	1.60	1.46
150	Pressure	5.39	4.85	4.48	4.10	3.83	3.56	3.35	2.96	2.67	2.37	2.15
	Suction	5.36	4.78	4.10	3.42	3.00	2.57	2.29	2.00	1.80	1.60	1.46

Double/Multi Span Condition												
Panel Thickness mm	Load Type	Uniformly distributed loads kN/m ² Span L in metres										
		2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0
45	Pressure	3.45	2.95	2.61	2.27	1.95	1.63	1.42	1.20	1.06	0.92	0.83
	Suction	3.05	2.45	2.10	1.75	1.54	1.32	1.17	1.02	0.92	0.82	0.75
60	Pressure	4.64	4.11	3.67	3.22	2.76	2.29	1.98	1.66	1.46	1.26	1.13
	Suction	3.93	3.15	2.71	2.26	1.98	1.69	1.51	1.32	1.19	1.06	0.96
70	Pressure	5.05	4.54	4.19	3.84	3.30	2.75	2.36	1.97	1.73	1.48	1.32
	Suction	4.49	3.60	3.09	2.58	2.26	1.94	1.73	1.51	1.36	1.21	1.10
80	Pressure	5.39	4.85	4.48	4.10	3.67	3.23	2.77	2.30	2.01	1.71	1.52
	Suction	4.98	4.03	3.46	2.88	2.53	2.17	1.93	1.69	1.52	1.35	1.23
100	Pressure	5.39	4.85	4.48	4.10	3.83	3.56	3.28	2.99	2.60	2.20	1.94
	Suction	5.36	4.78	4.10	3.42	3.00	2.57	2.29	2.00	1.80	1.60	1.46
120	Pressure	5.39	4.85	4.48	4.10	3.83	3.56	3.28	2.99	2.60	2.20	1.94
	Suction	5.36	4.78	4.10	3.42	3.00	2.57	2.29	2.00	1.80	1.60	1.46
140	Pressure	5.39	4.85	4.48	4.10	3.83	3.56	3.28	2.99	2.60	2.20	1.94
	Suction	5.36	4.78	4.10	3.42	3.00	2.57	2.29	2.00	1.80	1.60	1.46
150	Pressure	5.39	4.85	4.48	4.10	3.83	3.56	3.28	2.99	2.60	2.20	1.94
	Suction	5.36	4.78	4.10	3.42	3.00	2.57	2.29	2.00	1.80	1.60	1.46

Notes:

1. Values have been calculated using the method described in BS EN 14509 2006, for dark coloured panels.
2. Deflection limit for: pressure loading is L/100 and suction loading is L/100.
3. The actual wind suction load resisted by the panel is dependent on the number of fasteners used and the support thickness as well as the fastener material.
4. The fastener calculation should be carried out in accordance with the appropriate standards. For further advice please contact Kingspan envirocare Technical Services.
5. The allowable steelwork tolerance between bearing planes of adjacent supports is +/- 5mm.
6. Load span tables for the panel specifications not shown are available from Kingspan envirocare Technical Services.