



# King Zip IP Standing Seam Insulated Panel

## KS1000 ZIP IP

### Data Sheet



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## KingZip IP

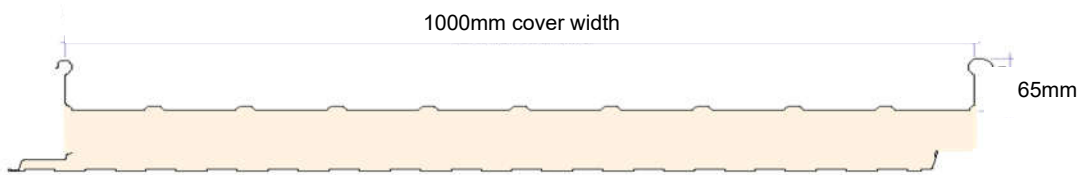
**Applications**

The KS1000 ZIP IP is a unique insulated standing seam roof panel, which give a secret-fix appearance unrivalled in the composite panel market. The panel can be used on roofs with pitches of 1.5° or more after deflection.

**Available Lengths**

Standard Lengths	1.8 – 14.5m
Longer Lengths (non-standard)	14.5- 25.7m
Shorter Lengths (non-standard)	Below 2.3m

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



**Dimensions, Weight & Thermal Performance**

Core Thickness (mm)	45	90	110	124	147
Overall Thickness (mm)	110	155	175	189	212
U-value (W/m²K)*	0.45	0.25	0.2	0.18	0.15
<b>KS1000 ZIP</b>					
Weight kg/m² 0.5 Steel/0.4 Steel	10	11.8	12.6	13.2	14.1
Weight kg/m² 0.9 Alum/0.4 Steel	8.3	10.1	10.9	11.4	12.4

The KS1000 ZIP IP standing seam systems 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).

# KS1000 ZIP IP

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### Insulation Core

KS1000 ZIP IP standing seam systems are manufactured with an ECOsafe and FIREsafe polyisocyanurate (PIR) core

### Fire

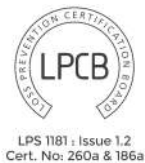
#### Reaction to Fire

- Classified B-s2,d0 according to the European Reaction to Fire classification system (Euroclasses) BS EN 13501-1:2007+A1:2009 when tested on the internal liner. Please contact Technical Services for information relating to the external face
- The panel is rated F.A.B when tested to BS 476: Part 3: 2004

### Insurer Approvals

- LPS 1181 Part 1: Issue 1, series of fire growth tests for LPCB approval and is certified to LPS 1181 Grade EXT-B

\*147mm core is not LPCB approved



### Environmental

Kingspan Insulated Panels produced in the UK are certified to BES 6001 (Framework Standard for the Responsible Sourcing of Construction Products) 'Very Good'. Kingspan Insulated Panels directly contribute to BREEAM/LEED credits.

### Air Leakage

An air leakage rate of 3m<sup>3</sup>/hr/m<sup>2</sup> at 50Pa or less can be achieved when using Kingspan insulated roof and wall panels

### Acoustic

Sound Reduction Index (SRI)

Hz*	63	125	250	500	1K	2K	4K	8K
SRI (dB)	19	18	19	20	17	35	38	44

\* Frequency

The KS1000 ZIP IP standing seam system has a single figure weighted sound reduction  $R_w = 23\text{dB}$ .

### 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.

### Materials

#### Substrate

- Kingspan XL Forté, Kingspan Spectrum, Kingspan AQUAsafe, Kingspan AQUAsafe55 and Kingspan CLEANsafe: Metallic protected steel to BS EN 10346:2015, thickness 0.5mm.
- CLEANsafe 15: Metallic protected steel to BS EN 10346:2015, thickness 0.4mm.
- Stainless Steel: Austenitic Grade 316 stainless steel to BS EN 10088: Part 2: 2014, thickness 0.4mm.
- Aluminium: Grade 300. Standard external sheet 0.9mm

### Coatings - External Weather Sheet

- Kingspan XL Forté: consists of a multi-layer organic coating, embossed with a traditional leather-grain finish.
- Kingspan Spectrum: Consists of a coated semi-gloss finish with slight granular effect.
- Aluminium: Mill finish Stucco Embossed with lacquer.
- PVDF: 25 micron thick stoved fluorocarbon coating which has excellent colour stability even at temperatures as high as 120°C.
- ARS Abrasion Resistant: 28 micron thick polyester or polyurethane resin reinforced with polyamide high durability coating with exceptionally good handling characteristics.

### Coatings - Internal Liner Sheet

- CLEANsafe 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 AQUAsafe: The coating has been developed for use as the internal lining of insulated panels to suit high humidity internal environments.
- Kingspan AQUAsafe 55: The coating has been developed for use as the internal lining of insulated panels to swimming pool internal environments.
- Kingspan CLEANsafe 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.
- 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.

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## King Zip IP

### Panel End Cut Back

End Lap	200mm
Eaves	100mm

Note: Where an end lap is used the flush end of the down slope panel has a factory fitted end lap stitching plate.

### Product Tolerance

Cut to Length	-5mm +5mm
Cover Width	-0mm +3mm
Thickness	-2mm +2mm
End Square	-3mm +3mm

### Handling

The KS1000 ZIP IP standing seam system can be manufactured in both left to right-handed (LH) and right to left handed (RH).

### Seals

Factory applied side lap and anti-condensation tape. End laps site applied sealant.

### Quality & Durability

KS1000 ZIP IP standing seam systems 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. Compliant to BS OHSAS 18001 Occupational Health and Safety.



### Warranty

Kingspan Panel Warranty covering the following subject to project specific information:

- 25 year thermal performance warranty;
- 25 year structural performance warranty;
- Up to 40 year external coating warranty.

### Packing

KS1000 ZIP IP standing seam systems are stacked interleaved weather sheet to weather sheet/liner to liner. The top, bottom, sides and ends are protected with foam and timber packing and the entire pack is wrapped in plastic.

Core Thickness (mm)		45	90	110	124
KS1000 ZIP IP					
No. of panels in Pack		14	8	8	6

Note: Applies to UK pack sizes. Please contact Kingspan Technical Services for export information. Quantities are reduced for exceptionally long panels.

### 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.

### 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.

# KS1000 ZIP IP

## King Zip IP

### Structural Tables

Unfactored load/span table (to be compared against calculated design wind load values unfactored)

KS1000 King Zip External Sheet 0.5mm (Steel), Inner Sheet 0.4mm (Steel)

#### Single Span

Core Thickness (mm)	Load Type	Uniformly distributed imposed load, kN/m <sup>2</sup>									
		Span, m									
		0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6
45	Pressure	5.77	3.96	2.94	2.29	1.85	1.53	1.29	1.10	0.95	0.83
	Suction	6.36	4.39	3.29	2.61	2.14	1.81	1.55	1.36	1.20	1.07
90	Pressure	7.20	5.35	4.29	3.60	3.10	2.73	2.42	2.17	1.95	1.77
	Suction	7.98	5.99	4.85	4.12	3.60	3.20	2.88	2.61	2.38	2.17
110	Pressure	7.85	5.99	4.91	4.21	3.69	3.29	2.97	2.69	2.45	2.23
	Suction	8.58	6.71	5.57	4.82	4.28	3.86	3.48	3.17	2.92	2.70
124	Pressure	8.30	6.43	5.35	4.64	4.11	3.66	3.28	2.97	2.72	2.50
	Suction	8.59	6.89	5.75	4.94	4.34	3.86	3.49	3.18	2.92	2.70
147	Pressure	8.38	6.68	5.54	4.73	4.13	3.65	3.28	2.97	2.71	2.49
	Suction	8.59	6.89	5.76	4.95	4.34	3.87	3.49	3.18	2.93	2.71

#### Double Span

Core Thickness (mm)	Load Type	Uniformly distributed imposed load, kN/m <sup>2</sup>									
		Span, m									
		0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6
45	Pressure	4.25	3.35	2.77	2.29	1.85	1.46	1.19	0.98	0.83	0.71
	Suction	4.61	3.69	3.09	2.61	2.14	1.81	1.55	1.36	1.20	1.07
90	Pressure	4.23	3.29	2.68	2.26	1.96	1.73	1.47	1.24	1.05	0.91
	Suction	4.64	3.69	3.07	2.63	2.31	2.07	1.87	1.71	1.54	1.38
110	Pressure	4.23	3.28	2.67	2.24	1.93	1.69	1.51	1.35	1.15	1.00
	Suction	4.67	3.71	3.08	2.64	2.31	2.06	1.86	1.70	1.57	1.46
124	Pressure	4.23	3.28	2.66	2.23	1.91	1.67	1.49	1.34	1.21	1.05
	Suction	4.69	3.74	3.09	2.64	2.31	2.06	1.86	1.70	1.57	1.46
147	Pressure	4.24	3.28	2.65	2.21	1.89	1.65	1.46	1.31	1.18	1.08
	Suction	4.71	3.74	3.10	2.65	2.31	2.06	1.85	1.69	1.56	1.45

#### Notes:

- Values have been calculated using the method described in BS EN 14509 2013, for medium coloured panels.
- The following deflection limits have been used:
  - Pressure loading L/200
  - Suction loading L/150
- All panel thickness have been calculated with a minimum support width of 50mm. Larger support widths are possible.
- The actual wind suction resisted by the panel is dependent upon the number of fasteners and the material of the supporting element.
- The fastener calculation should be carried out in accordance with the appropriate standards.
- For intermediate values linear interpolation may be used.
- The allowable steelwork tolerance between bearing planes of adjacent supports is +/- 5mm

# KS1000 ZIP IP

## King Zip IP

Unfactored Load/Span tables (to be compared against calculated design wind load values unfactored)

KS1000 King ZIP External sheet 0.9mm (Aluminium), Internal sheet 0.4mm (steel)

### Single Span

Core Thickness (mm)	Load Type	Uniformly distributed imposed load, kN/m <sup>2</sup>									
		Span, m									
		0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6
45	Pressure	6.14	4.32	3.28	2.61	2.14	1.79	1.52	1.31	1.13	0.93
	Suction	6.84	4.65	3.44	2.69	2.19	1.83	1.52	1.30	1.02	0.66
90	Pressure	8.16	6.28	5.17	4.41	3.85	3.40	3.03	2.71	2.44	2.20
	Suction	8.57	6.87	5.73	4.92	4.32	3.84	3.44	3.09	2.80	2.54
110	Pressure	8.40	6.70	5.57	4.76	4.15	3.68	3.30	2.99	2.74	2.52
	Suction	8.57	6.87	5.74	4.93	4.32	3.85	3.47	3.16	2.90	2.69
124	Pressure	8.40	6.70	5.57	4.76	4.15	3.68	3.30	2.99	2.73	2.51
	Suction	8.57	6.87	5.74	4.93	4.32	3.85	3.47	3.17	2.91	2.69
147	Pressure	8.39	6.69	5.56	4.75	4.14	3.67	3.29	2.98	2.72	2.51
	Suction	8.58	6.88	5.75	4.94	4.33	3.86	3.48	3.17	2.91	2.70

### Double Span

Core Thickness (mm)	Load Type	Uniformly distributed imposed load, kN/m <sup>2</sup>									
		Span, m									
		0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6
45	Pressure	4.09	3.22	2.67	2.29	2.01	1.79	1.51	1.27	1.08	0.94
	Suction	3.71	2.93	2.45	2.11	1.48	1.11	0.88	0.72	0.62	0.55
90	Pressure	4.04	3.13	2.55	2.15	1.86	1.65	1.48	1.34	1.23	1.14
	Suction	3.64	2.79	2.22	1.83	1.59	1.44	1.15	0.93	0.78	0.68
110	Pressure	4.04	3.12	2.52	2.12	1.82	1.60	1.43	1.29	1.18	1.09
	Suction	3.65	2.78	2.08	1.65	1.39	1.24	1.14	1.06	0.88	0.76
124	Pressure	4.05	3.11	2.51	2.10	1.80	1.57	1.40	1.26	1.15	1.06
	Suction	3.65	2.76	2.00	1.55	1.28	1.11	1.01	0.95	0.92	0.82
147	Pressure	4.05	3.11	2.49	2.07	1.76	1.53	1.36	1.22	1.11	1.02
	Suction	3.67	2.71	1.91	1.43	1.13	0.95	0.84	0.77	0.74	0.72

#### Notes:

- Values have been calculated using the method described in BS EN 14509 2013, for medium coloured panels.
- The following deflection limits have been used:
  - Pressure loading L/200
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- All panel thickness have been calculated with a minimum support width of 50mm. Larger support widths are possible.
- The actual wind suction resisted by the panel is dependent upon the number of fasteners and the material of the supporting element.
- The fastener calculation should be carried out in accordance with the appropriate standards.
- For intermediate values linear interpolation may be used.
- The allowable steelwork tolerance between bearing planes of adjacent supports is +/- 5mm



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## UK

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For the product offering in other markets  
Please contact your local sales representative  
or visit [www.kingspanpanels.com](http://www.kingspanpanels.com)

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