



# Kingspan Facades QuadCore™ Evolution Product Data Sheet

Panelised Facade System



POWERED BY  
**QuadCore™**  
TECHNOLOGY

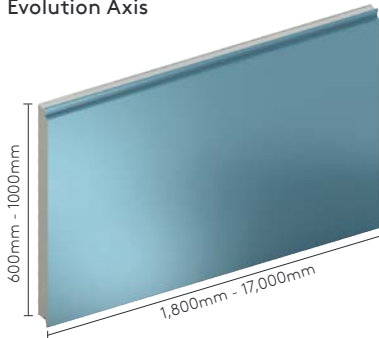


# QuadCore™ Evolution

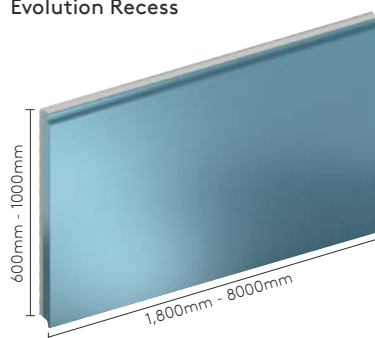
## Product Data Sheet

Kingspan Facades is a service-led business unit providing design and construction teams with a comprehensive portfolio of advanced facade systems suitable for a multitude of performance applications and architectural styles. Our aesthetic offering is supported with solutions suitable for all storeys heights that encompass advanced insulation core technology, alongside more traditional solutions.

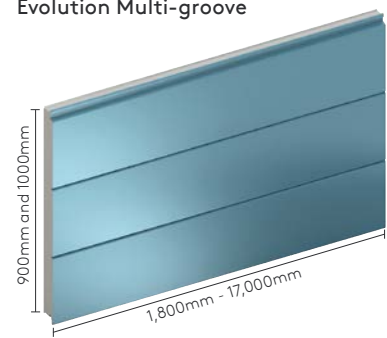
Evolution Axis



Evolution Recess



Evolution Multi-groove



### Applications

QuadCore™ Evolution represents a dramatic breakthrough in pre-engineered insulated wall panels delivering a clean, smooth and aesthetically appealing modern solution. The system has a hidden joint detail which conceals fasteners from view and is available in various widths to suit any design.

### Available Lengths

Standard Lengths	1.8m - 12m*
Longer Lengths (non-standard)	12 - 17m*
Shorter Lengths (non-standard)	Below 1.8m

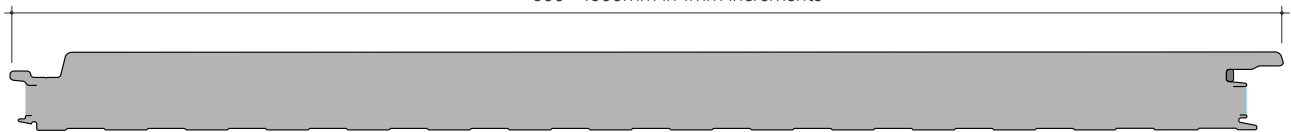
**Notes:** Additional costs and transport restrictions may apply for non-standard lengths. All lengths may change for export (outside of the UK).

\*Evolution Recess only available up to a maximum of 8m

### Dimensions, Weight & Thermal Performance

#### Evolution Axis and Recess

600 - 1000mm in 1mm increments



#### Evolution Multi-groove

900 and 1000mm



Core Thickness (mm)	45	54	60	70	74	80	88	100	120	140	150
U-value (W/m <sup>2</sup> K)	0.46	0.35	0.32	0.27	0.25	0.23	0.21	0.19	0.15	0.13	0.12
Weight kg/m <sup>2</sup> 0.63/0.4 Steel	10.9	11.2	11.5	11.9	12	12.3	12.6	13.1	13.9	14.7	15.1
Weight kg/m <sup>2</sup> 0.63/0.63 Steel (Longspan)	12.8	13.1	13.4	13.8	13.9	14.2	14.5	15.0	15.8	16.6	17.0

QuadCore™ Evolution 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).

## Insulation Core

QuadCore™ Evolution insulated wall panels are manufactured with an HCFC, CFC and HFC free QuadCore™ insulation core.

## Fire

The external and internal faces of the panel to be Class 0 in accordance with the Building Regulations when tested to BS 476: Part 6: 2009 and Part 7: 1997.

This QuadCore™ hybrid insulation core system has passed all the requirements of;

- LPS1181: 2014: Part 1: Issue 1.2, series of fire growth tests for LPCB approval\* and is certified to LPS 1181 Grade EXT-B, for further information please contact Kingspan Technical Services.
- FM approval\*\* to FMRC 4880 & 4481 Class 1 fire classification, unlimited height.
- Reaction to fire classification according to BS EN 13501-1:2007+A1:2009: B-s1,d0.
- Achieves periods of fire resistance - for further information contact Kingspan Facades Technical Services

\*Evolution Longspan is not LPCB approved.

\*\*FM approval for 900 & 1000mm cover width panels only.



## 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)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
SRI (dB)	20	18	20	24	20	29	39	47

QuadCore™ Evolution insulated wall panel has a single figure weighted sound reduction  $R_w = 24$ 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 Spectrum, Kingspan AQUAsafe, and Kingspan CLEANsafe: Material S220GD+ZA hot-dip zinc/aluminium Galvan coated steel to BS EN 10346: 2009 Standard external sheet thickness 0.63mm, standard internal sheet thickness 0.4mm.
- CLEANsafe 15: Material Hot dip zinc coated to BS EN 10346: 2009, Standard internal steel thickness 0.4mm (0.63mm for Evolution Longspan).
- Stainless Steel: Austenitic Grade 304 stainless steel to BS EN 10088: Part 2: 2005, thickness 0.4mm.

### Coatings - External Weather Sheet

- Kingspan Spectrum: Consists of a coated semi-gloss finish with slight granular effect.
- Kingspan Altaris: Technically advanced PVDF multi-layer (up to 4 layers of paint) coatings featuring colour purity, strength, resistance and stability.
- Kingspan Textured: A range of elastomeric acrylic rendered effect coatings that provides a protective weathering membrane which is extremely durable, fade and mildew resistant.

### Coatings - Internal Liner Sheet

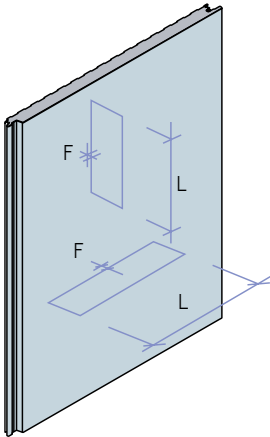
- CLEANsafe 15: The coating has been developed for use as the internal lining of insulated panels. Standard colour is "bright white" with an easily cleaned surface.
- Kingspan AQUAsafe: The coating has been developed for use as the internal lining of insulated panels to suit high humidity internal environments (class 5 as defined by the Building Regulations).
- 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.

# QuadCore™ Evolution

## Product Data Sheet

### Flatness Tolerances

L (mm)	200	400	700	1000
F (mm)	0.6	1.0	1.5	1.8



### Product Tolerance

Length	-5mm +5mm (-2mm +2mm Evolution Recess)
Width	-2mm +2mm
Thickness	-2mm +2mm
Squareness	-3mm +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.

### Quality & Durability

QuadCore™ Evolution insulated 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 BSEN ISO 14001. Compliant to BS OHSAS 18001 Occupational Health and Safety.

### Warranty

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

- Up to 40 year thermal;
- Up to 40 structural;
- Up to 40 year external coating.

### Packing

The QuadCore™ Evolution 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	54	60	70	74	80	88	100	120	140	150
No. of Panels in Pack	25	20	18	16	15	13	12	11	9	6	5

**Notes:** Applies to UK pack sizes. Please contact Kingspan Customer Services for export information.

### 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 Facades Technical Services.

### QuadCore™ Evolution

External sheet 0.63mm (steel), Internal sheet 0.4mm (steel)

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

#### Single Span

Core Thickness (mm)	Load Type	Uniformly distributed imposed load, kN/m <sup>2</sup>																										
		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	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8
45	Pressure	8.00	6.00	4.80	4.00	3.43	3.00	2.67	2.40	2.18	1.82	1.52	1.28	1.08	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suction	8.00	6.00	4.80	4.00	3.43	3.00	2.67	2.28	1.84	1.49	1.22	1.00	0.82	0.67	-	-	-	-	-	-	-	-	-	-	-	-	-
54	Pressure	9.60	7.20	5.76	4.80	4.11	3.60	3.20	2.88	2.62	2.40	2.09	1.77	1.51	1.30	1.12	0.97	0.84	-	-	-	-	-	-	-	-	-	
	Suction	9.60	7.20	5.76	4.80	4.11	3.60	3.20	2.88	2.55	2.11	1.75	1.46	1.22	1.03	0.87	0.73	0.62	-	-	-	-	-	-	-	-	-	
60	Pressure	10.67	8.00	6.40	5.33	4.57	4.00	3.56	3.20	2.91	2.67	2.46	2.12	1.82	1.57	1.36	1.18	1.03	0.90	-	-	-	-	-	-	-	-	
	Suction	10.67	8.00	6.40	5.33	4.57	4.00	3.56	3.20	2.91	2.54	2.13	1.79	1.51	1.28	1.09	0.93	0.80	0.68	-	-	-	-	-	-	-	-	
70	Pressure	12.44	9.33	7.47	6.22	5.33	4.67	4.15	3.73	3.39	3.11	2.87	2.67	2.36	2.05	1.79	1.57	1.38	1.21	1.07	0.95	0.84	-	-	-	-	-	
	Suction	12.44	9.33	7.47	6.22	5.33	4.67	4.15	3.73	3.39	3.04	2.59	2.23	1.95	1.71	1.50	1.29	1.12	0.97	0.84	0.74	0.64	-	-	-	-	-	
74	Pressure	13.16	9.87	7.89	6.58	5.64	4.93	4.39	3.95	3.59	3.29	3.04	2.82	2.59	2.25	1.97	1.73	1.52	1.34	1.19	1.06	0.94	0.84	-	-	-	-	
	Suction	13.16	9.87	7.89	6.58	5.64	4.93	4.39	3.95	3.59	3.21	2.73	2.36	2.05	1.80	1.60	1.43	1.26	1.09	0.95	0.84	0.73	0.64	-	-	-	-	
80	Pressure	14.22	10.67	8.53	7.11	6.10	5.33	4.74	4.27	3.88	3.56	3.28	3.05	2.84	2.57	2.25	1.98	1.75	1.55	1.37	1.22	1.09	0.98	0.88	0.79	-	-	
	Suction	12.22	10.67	8.53	7.11	6.10	5.33	4.74	4.27	3.88	3.46	2.95	2.54	2.21	1.95	1.72	1.54	1.38	1.25	1.13	0.99	0.87	0.77	0.68	0.61	-	-	
88	Pressure	15.64	11.73	9.39	7.82	6.70	5.87	5.21	4.69	4.27	3.91	3.61	3.35	3.13	2.93	2.64	2.33	2.06	1.83	1.63	1.46	1.31	1.18	1.06	0.95	0.86	0.78	
	Suction	15.64	11.73	9.39	7.82	6.70	5.87	5.21	4.69	4.27	3.79	3.23	2.79	2.43	2.13	1.89	1.69	1.51	1.37	1.24	1.13	1.03	0.95	0.85	0.76	0.68	0.60	
100	Pressure	17.78	13.33	10.67	8.89	7.62	6.67	5.93	5.33	4.85	4.44	4.10	3.81	3.56	33.3	3.14	2.88	2.56	2.29	2.05	1.84	1.65	1.49	1.35	1.22	1.11	1.01	0.92
	Suction	17.78	13.33	10.67	8.89	7.62	6.67	5.93	5.33	4.85	4.29	3.65	3.15	2.74	2.41	2.14	1.91	1.71	1.54	1.40	1.28	1.17	1.07	0.99	0.91	0.85	0.79	0.73
120	Pressure	21.33	16.00	12.80	10.67	9.14	8.00	7.11	6.40	5.82	5.33	4.92	4.57	4.27	4.00	3.76	3.56	3.37	3.10	2.79	2.52	2.28	2.06	1.87	1.71	1.55	1.42	1.30
	Suction	21.33	16.00	12.80	1.67	9.14	8.00	7.11	6.40	5.82	5.10	4.35	3.75	3.27	2.87	2.54	2.27	2.04	1.84	1.67	1.52	1.39	1.28	1.18	1.09	1.01	0.94	0.87
140	Pressure	21.33	16.00	12.80	10.67	9.14	8.00	7.11	6.40	5.82	5.33	4.92	4.57	4.27	4.00	3.76	3.56	3.37	3.20	3.05	2.91	2.78	2.67	2.45	2.24	2.05	1.88	1.73
	Suction	21.33	16.00	12.80	10.67	9.14	8.00	7.11	6.40	5.82	5.33	4.92	4.34	3.78	3.32	2.94	2.62	2.36	2.13	1.93	1.76	1.61	1.48	1.36	1.26	1.17	1.08	1.01
150	Pressure	21.33	16.00	12.80	10.67	9.14	8.00	7.11	6.40	5.82	5.33	4.92	4.57	4.27	4.00	3.76	3.56	3.37	3.20	3.05	2.91	2.78	2.67	2.56	2.46	2.31	2.12	1.95
	Suction	21.33	16.00	12.80	10.67	9.14	8.00	7.11	6.40	5.82	5.33	4.92	4.57	4.03	3.54	3.14	2.80	2.51	2.27	2.06	1.87	1.72	1.58	1.45	1.34	1.24	1.16	1.08

#### Double Span

Core Thickness (mm)	Load Type	Uniformly distributed imposed load, kN/m <sup>2</sup>																										
		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	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8
45	Pressure	8.00	6.00	4.80	4.00	3.43	3.00	2.67	2.40	2.18	2.00	1.85	1.65	1.39	1.19	1.03	0.90	0.79	0.70	0.63	-	-	-	-	-	-	-	-
	Suction	8.00	6.00	4.80	4.00	3.43	3.00	2.67	2.40	2.18	1.97	1.68	1.45	1.26	1.11	0.98	0.88	0.79	0.71	0.64	-	-	-	-	-	-	-	-
54	Pressure	9.60	7.20	5.76	4.80	4.11	3.60	3.20	2.88	2.62	2.40	2.22	2.06	1.72	1.46	1.26	1.10	0.96	0.85	0.76	0.68	0.62	-	-	-	-	-	
	Suction	9.60	7.20	5.76	4.80	4.11	3.60	3.20	2.88	2.62	2.36	2.01	1.73	1.51	1.33	1.18	1.05	0.94	0.85	0.77	0.70	0.64	-	-	-	-	-	
60	Pressure	10.67	8.00	6.40	5.33	4.57	4.00	3.56	3.20	2.91	2.67	2.46	2.29	1.95	1.66	1.42	1.23	1.08	0.96	0.85	0.76	0.69	0.63	-	-	-	-	
	Suction	10.67	8.00	6.40	5.33	4.57	4.00	3.56	3.20	2.91	2.62	2.23	1.92	1.67	1.47	1.30	1.16	1.04	0.94	0.85	0.78	0.71	0.65	-	-	-	-	
70	Pressure	12.44	9.33	7.47	6.22	5.33	4.67	4.15	3.73	3.39	3.11	2.87	2.66	2.35	1.99	1.71	1.51	1.35	1.12	1.09	0.99	0.90	0.81	0.73	0.67	0.61	-	-
	Suction	12.44	9.33	7.47	6.22	5.33	4.64	4.07	3.63	3.27	2.98	2.59	2.23	1.95	1.71	1.51	1.35	1.12	1.09	0.99	0.90	0.83	0.76	0.70	0.65	-	-	
74	Pressure	13.16	9.87	7.89	6.58	5.64	4.93	4.39	3.92	3.53	3.21	2.95	2.72	2.52	2.12	1.81	1.56	1.37	1.20	1.07	0.96	0.86	0.78	0.71	0.65	0.59	-	-
	Suction	13.16	9.87	7.89	6.58	5.54	4.76	4.18	3.72	3.35	3.06	2.73	2.36	2.05	1.80	1.60	1.43	1.28	1.15	1.05	0.95	0.87	0.80	0.74	0.68	0.63	-	-
80	Pressure	14.22	10.67	8.53	7.11	6.06	5.22	4.57	4.07	3.67	3.33	3.06	2.82	2.62	2.33	1.98	1.71	1.49	1.31	1.16	1.04	0.93	0.84	0.77	0.70	0.64	0.59	-
	Suction	14.22	10.67	8.45	6.86	5.76	4.95	4.34	3.86	3.48	3.17	2.91	1.54	2.21	1.95	1.72	1.54	1.38	1.25	1.13	1.03	0.94	0.86	0.80	0.74	0.68	0.64	-
88	Pressure	15.64	11.73	9.27	7.56	6.36	5.48	4.80	4.27	3.84	3.50	3.20	2.96	2.75	2.57	2.22	1.91	1.66	1.46	1.29	1.15	1.03	0.93	0.84	0.77	0.70	0.65	0.60
	Suction	15.64	11.42	8.88	7.21	6.05	5.20	4.55	4.05	3.65	3.32	3.05	2.79	2.43	2.13	1.89	1.69	1.51	1.37	1.24	1.13	1.03	0.95	0.87	0.81	0.75	0.70	0.65
100	Pressure	17.26	12.67	9.93	8.11	6.82	5.87	5.15	4.58	4.12	3.74	3.43	3.16	2.94	2.74	2.57	2.21	1.92	1.68	1.48	1.32	1.18	1.06	0.96	0.88	0.80	0.74	0.68
	Suction	16.79	12.23	9.52	7.74	6.49	5.58	4.88	4.34	3.90	3.55	3.25	3.01	2.74	2.41	2.14	1.91	1.71	1.54	1.40	1.28	1.17	1.07	0.99	0.91	0.85	0.79	0.73
120	Pressure	17.31	12.72	9.97	8.15	6.86	5.91	5.17	4.60	4.13	3.75	3.44	3.17	2.94	2.74	2.57	2.42	2.29	2.05	1.81	1.60	1.43	1.28	1.16	1.05	0.96	0.88	0.81
	Suction	16.83	12.27	9.55	7.77	6.51	5.59	4.88	4.33	3.90	3.54	3.24	2.99	2.78	2.60	2.44	2.27	2.04	1.84	1.67	1.52	1.39	1.28	1.18	1.09	1.01	0.94	0.87
140	Pressure	17.34	12.76	10.01	8.18	6.89	5.93	5.19	4.61	4.15	3.76	3.44	3.17	2.94	2.74	2.57	2.42	2.28	2.16	2.06	1.89	1.68	1.50	1.35	1.22	1.11	1.02	0.93
	Suction	16.86	12.30	9.58	7.79	6.52	5.59	4.89	4.33	3.89	3.53	3.23	2.98	2.76	2.58	2.42	2.28	2.16	2.05	1.93	1.76	1.61	1.48	1.36	1.26	1.17	1.08	1.01
150	Pressure	17.35	12.77	10.02	8.20	6.90	5.94	5.20	4.62	4.15	3.77	3.45	3.18	2.95	2.75	2.57	2.42	2.28	2.16	2.05	1.96	1.80	1.61	1.45	1.31	1.19	1.09	1.00
	Suction	16.87	12.31	9.59	7.79	6.53	5.60	4.89	4.33	3.89	3.52	3.22	2.97	2.76	2.57	2.41	2.27	2.15	2.04	1.94	1.85	1.72	1.58	1.45	1.34	1.24	1.16	1.08

# QuadCore™ Evolution

## Product Data Sheet

### Triple Span

Core Thickness (mm)	Load Type	Uniformly distributed imposed load, kN/m <sup>2</sup>																											
		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	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	
45	Pressure	8.00	6.00	4.80	4.00	3.43	3.00	2.67	2.40	2.18	2.00	1.85	1.71	1.60	1.41	1.23	1.09	0.97	0.87	0.79	0.71	-	-	-	-	-	-	-	
	Suction	8.00	6.00	4.80	4.00	3.43	3.00	2.67	2.40	2.18	1.97	1.68	1.45	1.26	1.11	0.98	0.88	0.79	0.71	0.64	0.59	-	-	-	-	-	-	-	
54	Pressure	9.60	7.20	5.76	4.80	4.11	3.60	3.20	2.88	2.62	2.40	2.22	2.06	1.92	1.70	1.48	1.31	1.16	1.04	0.94	0.85	0.77	0.71	-	-	-	-	-	
	Suction	9.60	7.20	5.76	4.80	4.11	3.60	3.20	2.88	2.62	2.36	2.01	1.73	1.51	1.33	1.18	1.05	0.94	0.85	0.77	0.70	0.64	0.59	-	-	-	-	-	
60	Pressure	10.67	8.00	6.40	5.33	4.57	4.00	3.56	3.20	2.91	2.67	2.46	2.29	2.13	1.89	1.65	1.45	1.29	1.16	1.04	0.94	0.86	0.78	0.72	-	-	-	-	
	Suction	10.67	8.00	6.40	5.33	4.57	4.00	3.56	3.20	2.91	2.62	2.23	1.92	1.67	1.47	1.30	1.16	1.04	0.94	0.85	0.78	0.71	0.65	0.60	-	-	-	-	
70	Pressure	12.44	9.33	7.47	6.22	5.33	4.67	4.15	3.73	3.39	3.11	2.87	2.67	2.49	2.21	1.93	1.70	1.51	1.34	1.21	1.09	0.99	0.91	0.83	0.77	0.71	-	-	
	Suction	12.44	9.33	7.47	6.22	5.33	4.67	4.15	3.73	3.39	3.04	2.59	2.23	1.95	1.71	1.51	1.35	1.21	1.09	0.99	0.90	0.83	0.76	0.70	0.65	0.60	-	-	
74	Pressure	13.16	9.87	7.89	6.58	5.64	4.93	4.39	3.95	3.59	3.29	3.04	2.82	2.63	2.34	2.04	1.79	1.59	1.42	1.28	1.15	1.05	0.96	0.88	0.81	0.75	0.69	-	
	Suction	13.16	9.87	7.89	6.58	5.64	4.93	4.39	3.95	3.59	3.21	2.73	2.36	2.05	1.80	1.60	1.43	1.28	1.15	1.05	0.95	0.87	0.80	0.74	0.68	0.63	0.59	-	
80	Pressure	14.22	10.67	8.53	7.11	6.10	5.33	4.74	4.27	3.88	3.56	3.28	3.05	2.84	2.53	2.20	1.94	1.72	1.53	1.38	1.24	1.13	1.03	0.94	0.87	0.80	0.74	0.69	
	Suction	14.22	10.67	8.53	7.11	6.10	5.33	4.74	4.27	3.88	3.46	2.95	2.54	2.21	1.95	1.72	1.54	1.38	1.25	1.13	1.03	0.94	0.86	0.80	0.74	0.38	0.64	0.59	
88	Pressure	15.64	11.73	9.39	7.82	6.67	5.81	5.15	4.62	4.19	3.84	3.54	3.29	3.07	2.79	2.43	2.13	1.88	1.68	1.51	1.36	1.24	1.13	1.03	0.95	0.87	0.81	0.75	
	Suction	15.64	11.66	9.20	7.59	6.46	5.63	4.99	4.49	4.08	3.74	3.23	2.79	2.43	2.13	1.89	1.69	1.51	1.37	1.24	1.13	1.03	0.95	0.86	0.81	0.75	0.70	0.65	
100	Pressure	17.36	12.83	10.14	8.37	7.12	6.20	5.49	4.92	4.47	4.09	3.77	3.50	3.26	3.06	2.76	2.41	2.13	1.90	1.70	1.53	1.39	1.27	1.16	1.06	0.98	0.91	0.84	
	Suction	16.94	12.46	9.82	8.10	6.89	6.00	5.32	4.78	4.34	3.98	3.65	3.15	2.74	2.41	2.14	1.91	1.71	1.54	1.40	1.28	1.17	1.07	0.99	0.91	0.85	0.79	0.73	
120	Pressure	17.39	12.85	10.15	8.38	7.12	6.20	5.48	4.92	4.46	4.08	3.76	3.49	3.26	3.05	2.87	2.71	2.54	2.26	2.02	1.82	1.64	1.49	1.37	1.25	1.15	1.07	0.99	
	Suction	16.95	12.46	9.82	8.08	6.87	5.98	5.29	4.75	4.32	3.96	3.65	3.39	3.17	2.87	2.54	2.27	2.04	1.84	1.67	1.52	1.39	1.28	1.18	1.09	1.01	0.94	0.87	
140	Pressure	17.41	12.87	10.17	8.38	7.13	6.20	5.48	4.91	4.45	4.07	3.76	3.48	3.25	3.04	2.86	2.71	2.56	2.43	2.32	2.09	1.88	1.71	1.56	1.43	1.32	1.21	1.13	
	Suction	16.96	12.47	9.81	8.07	6.85	5.96	5.27	4.73	4.29	3.93	3.63	3.37	3.15	2.95	2.78	2.62	2.36	2.13	1.93	1.76	1.61	1.48	1.36	1.26	1.17	1.08	1.01	
150	Pressure	17.42	12.88	10.17	8.39	7.13	6.20	5.48	4.91	4.45	4.07	3.75	3.48	3.25	3.04	2.86	2.70	2.56	2.43	2.32	2.21	2.00	1.82	1.66	1.52	1.39	1.29	1.19	
	Suction	16.96	12.47	9.81	8.07	6.85	5.95	5.26	4.72	4.28	3.92	3.62	3.36	3.14	2.95	2.78	2.62	2.49	2.27	2.06	1.87	1.72	1.58	1.45	1.34	1.24	1.16	1.08	

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:

- Pressure loading L/100
- Suction loading L/100

3. All panel thicknesses have been calculated with a minimum support width of 50mm. 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 +/- 5mm.

## QuadCore™ Evolution Longspan

External sheet 0.63mm (steel), Internal sheet 0.63mm (steel)

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

### Single Span

Core Thickness (mm)	Load Type	Uniformly distributed imposed load, kN/m <sup>2</sup>																		
		Span, m																		
		1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8	5.2	5.6	6.0	6.4	6.8	7.2	7.6	8.0	8.4	8.8
74	Pressure	4.93	3.95	3.29	2.82	2.47	2.02	1.59	1.27	1.02	0.83	-	-	-	-	-	-	-	-	
	Suction	4.93	3.95	3.29	2.82	2.22	1.69	1.30	1.00	0.78	0.61	-	-	-	-	-	-	-	-	
80	Pressure	5.33	4.27	3.56	3.05	2.67	2.30	1.83	1.46	1.19	0.97	0.80	-	-	-	-	-	-	-	
	Suction	5.33	4.27	3.56	3.05	2.55	1.96	1.52	1.19	0.93	0.74	0.59	-	-	-	-	-	-	-	
88	Pressure	5.87	4.69	3.91	3.35	2.93	2.61	2.15	1.73	1.41	1.16	0.96	0.80	-	-	-	-	-	-	
	Suction	5.87	4.69	3.91	3.35	2.93	2.33	1.82	1.44	1.15	0.92	0.74	0.60	-	-	-	-	-	-	
100	Pressure	6.67	5.33	4.44	3.81	3.33	2.96	2.65	2.16	1.78	1.47	1.22	1.03	0.87	-	-	-	-	-	
	Suction	6.67	5.33	4.44	3.81	3.33	2.91	2.31	1.85	1.49	1.21	0.99	0.81	0.67	-	-	-	-	-	
120	Pressure	8.00	6.40	5.33	4.57	4.00	3.56	3.20	2.91	2.43	2.03	1.71	1.45	1.23	1.05	0.91	0.78	-	-	
	Suction	8.00	6.40	5.33	4.57	4.00	3.56	3.09	2.56	2.11	1.74	1.44	1.20	1.01	0.85	0.71	0.61	-	-	
140	Pressure	8.00	6.40	5.33	4.57	4.00	3.56	3.20	2.91	2.67	2.46	2.23	1.91	1.63	1.41	1.22	1.06	0.93	0.81	
	Suction	8.00	6.40	5.33	4.57	4.00	3.56	3.20	2.91	2.48	2.12	1.82	1.59	1.39	1.18	1.01	0.86	0.74	0.64	
150	Pressure	8.00	6.40	5.33	4.57	4.00	3.56	3.20	2.91	2.67	2.46	2.29	2.13	1.85	1.60	1.39	1.21	1.06	0.93	
	Suction	8.00	6.40	5.33	4.57	4.00	3.56	3.20	2.91	2.65	2.26	1.95	1.70	1.49	1.32	1.16	1.00	0.86	0.75	

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:

- a. Pressure loading L/100
- b. Suction loading L/100

3. All panel thicknesses have been calculated with a minimum support width of 50mm. 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 +/- 5mm.

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