QuadCore Karrier

Product Data Sheet

Applications

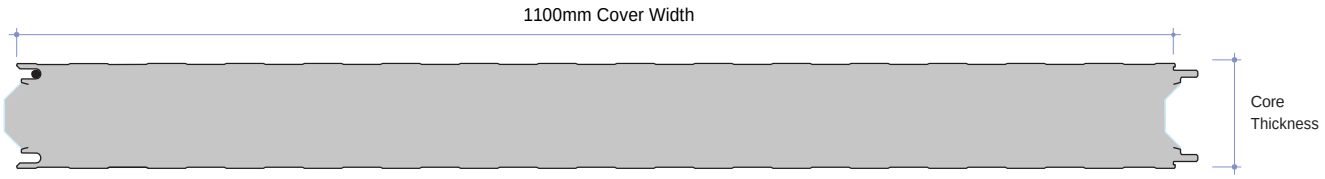
The QuadCore Karrier system is face fixed, provides the support, thermal and weathering functions to the Benchmark facades. The panel can be laid horizontally or vertically. Suitable for all building applications except where there are low temperature internal conditions.

Available Lengths

Standard Lengths	1.8m - 14.5m
Longer Lengths*	14.5m - 19.7m
Shorter Lengths*	Below 1.8m

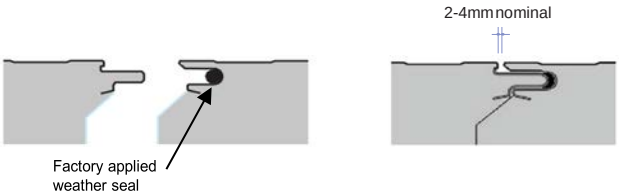
Notes:
*Non-standard lengths. Additional costs and transport restrictions may for non-standard lengths. All lengths may change for export (outside of the UK).

QuadCore Karrier



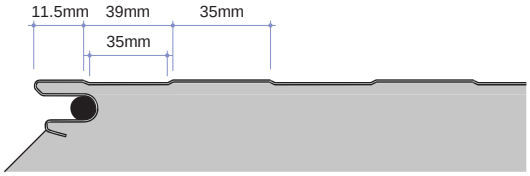
Panel Joint

QuadCore Karrier features a unique castellated and symmetrical tongue and groove joint which achieves excellent thermal, air-tightness and fire performance.



Profile

Equi-Bead as Standard (Flat – optional)



Dimensions, Weight and Thermal Performance

Core Thickness (mm)	50	60	80	100	125	150	175	200	220
Weight (0.63 / 0.5) (kg/m^2)	11.7	12.1	12.9	13.7	14.7	15.7	16.7	17.7	18.5
U-value (W/m^{2}K)	0.38	0.31	0.23	0.18	0.15	0.12	0.10	0.09	0.08

Notes:
These values are in accordance with BS EN 14509, calculated using Finite Element Analysis, and take into account any thermal bridging through the longitudinal joint.
The U-values have been calculated using an aged thermal conductivity value of 0.018W/mK.

Insulation Core

QuadCore Karrier is manufactured with a QuadCore hybrid insulation core. The core insulation is LPCB certified and HCFC, CFC, HFC free.

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.
Reaction to fire classification to EN 13501-1 for QuadCore Karrier is B-s1, d0.

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

- FM 4882 for smoke sensitive occupancies: Class 1 for interior walls and ceiling, unlimited height;
- LPS 1181: 2014: Part 1: Issue 1.2, series of fire growth tests for LPCB approval and is certified to LPS 1181 Grade EXT-B*;
- LPS 1181: 2005: Part 2: Issue 2.0, series of fire growth tests for LPCB approval and listing of construction product systems to LPS 1181: INT-3*, INT-2*;
- LPS 1208: 2014: Issue 2.2, LPCB fire resistance requirements for elements of construction used to provide compartmentation and achieve periods of fire resistance FR30 & FR60;
- FM approval to FMRC 4880, 4881 Class 1 fire classification, unlimited height**;
- Reaction to fire classification according to BS EN 13501-1: 2007 + A1: 2009: B-s1,d0.

Notes:
Certificates and specifications are available upon request. Please contact Kingspan envirocare Technical Services for more information.
* LPCB certification pending.
** FM approval pending.

LPS 1208: Issue 2
Cert No: 260c

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Materials

Substrate – S220G+ZA hot-dip zinc/aluminium Galfan coated metal

- Kingspan XL Forté: Metallic protected steel to BS EN 10346: 2009. Standard external sheet thickness 0.63mm.
- Kingspan CLEAN*safe* 15: Metallic protected steel to BS EN 10346: 2009. Standard internal steel thickness 0.5mm.

Coatings - External Weather Sheet

- Kingspan XL Forté™ Merlin grey or white as standard (other standard colours available upon specific request): Consists of a multi-layer organic coating, embossed with a traditional leather-grain finish.

Coatings - Internal Sheet

- 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.

Product Tolerances

Length (≤ 3m)	+ 5mm	- 5mm
Length (≥ 3m)	+ 10mm	- 10mm
Width	+ 2mm	- 2mm
Thickness (≤ 100mm)	+ 2mm	- 2mm
Thickness (≥ 100mm)	+ 2mm	- 2mm
Flatness (per metre)	+ 1.5mm	- 1.5mm
End Squareness	+ 3mm	- 3mm

Quality & Durability

QuadCore Karrier is 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 14001. Compliant to BS OHSAS 18001 Occupational Health and Safety.

QuadCore Karrier is CE marked to BS EN 14509:2013.

CE

Guarantee

Kingspan Ultimate Panel Guarantee covering the following:

- 30 year thermal performance.
- 30 year structural performance.
- Up to 40 year external coating guarantee, subject to project specific information.

Packing

QuadCore Karrier is stacked horizontally with external sheets upward. The top, bottom, sides and ends are protected with foam and timber packing, and the entire pack is wrapped in plastic.

Maximum pack weight is 1500kg.

Notes: Applies to UK pack sizes, please contact the Kingspan Customer Services Department for export information

Core Thickness (mm)	50	60	80	100	125	150	175	200	220
Panels per Pack	25	21	16	13	10	8	7	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

Site assembly instructions are available from Kingspan envirocare Technical Services. Kingspan recommend that the appointed cladding sub-contractor attends the appropriate product installation training course at our offices in Holywell prior to commencing installation on site.

Seals

Factory applied weather seal (FAWS) are applied to the external female joint as standard.

Acoustics

All QuadCore Karrier has a predicted single figure weighted sound reduction Rw=24dB.

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Structural Load / Span Tables

BENCHMARK Quadcore Karrier

External sheet 0.63mm Lightly Profiled (steel), Internal sheet 0.5mm Lightly Profiled (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^2 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**
50	Pressure	7.78	5.83	4.67	3.89	3.33	2.92	2.59	2.33	2.12	1.94	1.79	1.61	1.38	1.19	1.02	0.89	0.77	0.67	0.59	0.52	-	-	-	-
	Suction	7.78	5.83	4.67	3.89	3.33	2.92	2.59	2.33	2.12	1.87	1.55	1.30	1.09	0.91	0.77	0.63	0.52	0.42	0.34	0.27	-	-	-	-
60	Pressure	9.33	7.00	5.60	4.67	4.00	3.50	3.11	2.80	2.55	2.33	2.15	2.00	1.87	1.64	1.43	1.25	1.10	0.96	0.85	0.75	0.67	0.60	0.53	0.47
	Suction	9.33	7.00	5.60	4.67	4.00	3.50	3.11	2.80	2.55	2.33	2.10	1.81	1.57	1.34	1.15	0.98	0.85	0.73	0.63	0.53	0.44	0.37	0.31	0.26
80	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	2.33	2.20	2.06	1.83	1.63	1.45	1.30	1.17	1.05	0.95	0.85
	Suction	12.44	9.33	7.47	6.22	5.33	4.67	4.15	3.73	3.39	3.11	2.85	2.46	2.14	1.88	1.67	1.49	1.34	1.21	1.09	1.00	0.91	0.83	0.74	0.65
100	Pressure	15.56	11.67	9.33	7.78	6.67	5.83	5.19	4.67	4.24	3.89	3.59	3.33	3.11	2.92	2.75	2.59	2.46	2.33	2.14	1.93	1.74	1.58	1.43	1.30
	Suction	15.56	11.67	9.33	7.78	6.67	5.83	5.19	4.67	4.24	3.89	3.59	3.13	2.73	2.40	2.12	1.89	1.70	1.53	1.39	1.27	1.16	1.06	0.98	0.91
125	Pressure	19.44	14.58	11.67	9.72	8.33	7.29	6.48	5.83	5.30	4.86	4.49	4.17	3.89	3.65	3.43	3.24	3.07	2.92	2.78	2.65	2.54	2.32	2.12	1.94
	Suction	19.44	14.58	11.67	9.72	8.33	7.29	6.48	5.83	5.30	4.86	4.49	4.01	3.50	3.07	2.72	2.43	2.18	1.97	1.78	1.63	1.49	1.37	1.26	1.16
150	Pressure	22.22	16.67	13.33	11.11	9.52	8.33	7.41	6.67	6.06	5.56	5.13	4.76	4.44	4.17	3.92	3.70	3.51	3.33	3.17	3.03	2.90	2.78	2.67	2.56
	Suction	22.22	16.67	13.33	11.11	9.52	8.33	7.41	6.67	6.06	5.56	5.13	4.76	4.30	3.78	3.35	2.99	2.68	2.42	2.20	2.00	1.83	1.68	1.55	1.43
175	Pressure	27.22	20.42	16.33	13.61	11.67	10.21	9.07	8.17	7.42	6.81	6.28	5.83	5.44	5.10	4.80	4.54	4.30	4.08	3.89	3.71	3.55	3.40	3.27	3.14
	Suction	27.22	20.42	16.33	13.61	11.67	10.21	9.07	8.17	7.42	6.81	6.28	5.83	5.10	4.48	3.97	3.54	3.18	2.87	2.60	2.37	2.17	1.99	1.84	1.70
200	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	3.33	3.14	2.96	2.81	2.67	2.54	2.42	2.32	2.22	2.13	2.05
	Suction	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	3.33	3.14	2.96	2.81	2.67	2.54	2.42	2.32	2.22	2.13	1.99
220	Pressure	19.56	14.67	11.73	9.78	8.38	7.33	6.52	5.87	5.33	4.89	4.51	4.19	3.91	3.67	3.45	3.26	3.09	2.93	2.79	2.67	2.55	2.44	2.35	2.26
	Suction	19.56	14.67	11.73	9.78	8.38	7.33	6.52	5.87	5.33	4.89	4.51	4.19	3.91	3.67	3.45	3.26	3.09	2.93	2.79	2.67	2.55	2.44	2.35	2.22
		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**	**8.2**	**8.4**	**8.6**	**8.8**	**9.0**	**9.2**	**9.4**	**9.6**	**9.8**	**10.0**
50	Pressure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	Pressure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	Pressure	0.77	0.70	0.64	0.58	0.53	0.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suction	0.58	0.52	0.45	0.39	0.34	0.30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100	Pressure	1.19	1.08	0.99	0.91	0.83	0.76	0.70	0.65	0.60	0.55	0.51	0.47	-	-	-	-	-	-	-	-	-	-	-	-
	Suction	0.84	0.78	0.73	0.68	0.64	0.59	0.53	0.49	0.44	0.39	0.35	0.32	-	-	-	-	-	-	-	-	-	-	-	-
125	Pressure	1.78	1.63	1.50	1.38	1.27	1.17	1.09	1.00	0.93	0.86	0.80	0.75	0.70	0.65	0.61	0.57	0.53	0.49	0.46	0.43	-	-	-	-
	Suction	1.08	1.00	0.94	0.87	0.82	0.77	0.72	0.68	0.64	0.61	0.57	0.54	0.52	0.49	0.46	0.43	0.40	0.36	0.33	0.30	-	-	-	-
150	Pressure	2.43	2.24	2.07	1.91	1.77	1.64	1.52	1.41	1.31	1.22	1.14	1.07	1.00	0.93	0.87	0.82	0.77	0.72	0.68	0.64	0.60	0.56	0.53	0.50
	Suction	1.33	1.23	1.15	1.08	1.01	0.95	0.89	0.84	0.79	0.75	0.71	0.67	0.64	0.61	0.58	0.55	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.38
175	Pressure	3.02	2.90	2.68	2.49	2.31	2.15	2.00	1.86	1.74	1.62	1.52	1.42	1.33	1.25	1.17	1.10	1.03	0.97	0.92	0.86	0.82	0.77	0.73	0.69
	Suction	1.57	1.46	1.37	1.28	1.19	1.12	1.05	0.99	0.94	0.89	0.84	0.80	0.75	0.72	0.68	0.65	0.62	0.59	0.57	0.54	0.52	0.50	0.48	0.46
200	Pressure	1.98	1.90	1.84	1.78	1.72	1.67	1.62	1.57	1.52	1.48	1.44	1.40	1.37	1.33	1.30	1.25	1.18	1.11	1.06	1.00	0.95	0.90	0.85	0.81
	Suction	1.84	1.71	1.60	1.49	1.40	1.31	1.23	1.16	1.10	1.04	0.98	0.93	0.88	0.84	0.80	0.76	0.73	0.69	0.66	0.64	0.61	0.58	0.56	0.54
220	Pressure	2.17	2.10	2.02	1.96	1.89	1.83	1.78	1.73	1.68	1.63	1.59	1.54	1.50	1.47	1.43	1.40	1.36	1.32	1.25	1.19	1.13	1.07	1.02	0.97
	Suction	2.06	1.92	1.79	1.67	1.56	1.47	1.38	1.30	1.23	1.16	1.10	1.04	0.99	0.94	0.89	0.85	0.81	0.78	0.74	0.71	0.68	0.65	0.63	0.60

QuadCore Karrier

Product Data Sheet

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**	**4.4**	**4.6**	**4.8**	**5.0**	**5.2**
50	Pressure	7.78	5.83	4.67	3.89	3.33	2.92	2.59	2.33	2.12	1.94	1.79	1.67	1.56	1.46	1.37	1.30	1.19	1.05	0.94	0.84	0.76	0.69	0.63	0.57
	Suction	7.78	5.83	4.67	3.89	3.33	2.92	2.59	2.33	2.12	1.94	1.72	1.48	1.29	1.14	1.01	0.90	0.81	0.73	0.66	0.60	0.55	0.50	0.47	0.43
60	Pressure	9.33	7.00	5.60	4.67	4.00	3.50	3.11	2.80	2.55	2.33	2.15	2.00	1.87	1.75	1.65	1.56	1.47	1.31	1.16	1.04	0.94	0.85	0.77	0.71
	Suction	9.33	7.00	5.60	4.67	4.00	3.50	3.11	2.80	2.55	2.33	2.10	1.81	1.58	1.39	1.23	1.10	0.98	0.89	0.81	0.73	0.67	0.62	0.57	0.53
80	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	2.33	2.20	2.07	1.96	1.87	1.66	1.47	1.32	1.19	1.08	0.99
	Suction	12.44	9.33	7.47	6.22	5.33	4.67	4.15	3.73	3.39	3.11	2.85	2.46	2.14	1.88	1.67	1.49	1.34	1.21	1.09	1.00	0.91	0.84	0.77	0.71
100	Pressure	15.56	11.67	9.33	7.78	6.67	5.83	5.19	4.67	4.24	3.89	3.59	3.33	3.09	2.88	2.70	2.54	2.40	2.27	2.16	1.93	1.73	1.55	1.40	1.27
	Suction	15.56	11.67	9.33	7.78	6.67	5.83	5.16	4.58	4.12	3.74	3.42	3.13	2.73	2.40	2.12	1.89	1.70	1.53	1.39	1.27	1.16	1.06	0.98	0.91
125	Pressure	18.15	13.37	10.51	8.60	7.25	6.24	5.47	4.86	4.37	3.96	3.62	3.34	3.09	2.88	2.70	2.54	2.40	2.27	2.16	2.05	1.96	1.87	1.80	1.68
	Suction	17.69	12.94	10.10	8.22	6.90	5.92	5.17	4.58	4.11	3.73	3.41	3.14	2.92	2.72	2.55	2.40	2.18	1.97	1.78	1.63	1.49	1.37	1.26	1.16
150	Pressure	18.18	13.41	10.55	8.64	7.29	6.28	5.50	4.88	4.39	3.98	3.64	3.35	3.10	2.89	2.70	2.54	2.40	2.27	2.15	2.05	1.96	1.87	1.79	1.72
	Suction	17.72	12.97	10.13	8.25	6.92	5.93	5.18	4.59	4.11	3.72	3.40	3.13	2.90	2.71	2.53	2.38	2.25	2.13	2.03	1.93	1.83	1.68	1.55	1.43
175	Pressure	22.90	16.93	13.35	10.96	9.26	7.98	7.00	6.22	5.59	5.07	4.63	4.27	3.95	3.68	3.44	3.23	3.05	2.88	2.73	2.60	2.48	2.37	2.27	2.18
	Suction	22.43	16.49	12.92	10.55	8.87	7.62	6.67	5.91	5.30	4.80	4.38	4.03	3.73	3.48	3.25	3.06	2.88	2.73	2.59	2.37	2.17	1.99	1.84	1.70
200	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	3.33	3.14	2.96	2.81	2.67	2.54	2.42	2.32	2.22	2.13	2.05
	Suction	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	3.33	3.14	2.96	2.81	2.67	2.54	2.42	2.32	2.22	2.13	1.99
220	Pressure	19.56	14.67	11.73	9.78	8.38	7.33	6.52	5.87	5.33	4.89	4.51	4.19	3.91	3.67	3.45	3.26	3.09	2.93	2.79	2.67	2.55	2.43	2.33	2.23
	Suction	19.56	14.67	11.73	9.78	8.38	7.33	6.52	5.87	5.33	4.89	4.51	4.19	3.90	3.63	3.39	3.18	2.99	2.82	2.67	2.54	2.42	2.31	2.21	2.12
		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**	**8.2**	**8.4**	**8.6**	**8.8**	**9.0**	**9.2**	**9.4**	**9.6**	**9.8**	**10.0**
50	Pressure	0.53	0.49	0.45	0.42	0.39	0.36	0.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suction	0.40	0.37	0.35	0.32	0.30	0.28	0.27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	Pressure	0.65	0.60	0.55	0.51	0.48	0.44	0.41	0.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suction	0.49	0.45	0.42	0.39	0.37	0.35	0.33	0.31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	Pressure	0.90	0.83	0.76	0.71	0.66	0.61	0.57	0.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suction	0.66	0.61	0.57	0.54	0.50	0.47	0.44	0.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100	Pressure	1.16	1.06	0.98	0.90	0.84	0.78	0.72	0.68	0.63	0.59	0.56	0.53	0.50	0.47	0.45	0.42	0.40	0.38	-	-	-	-	-	-
	Suction	0.84	0.78	0.73	0.68	0.64	0.60	0.56	0.53	0.50	0.47	0.45	0.42	0.40	0.38	0.36	0.35	0.33	0.32	-	-	-	-	-	-
125	Pressure	1.53	1.40	1.28	1.18	1.09	1.01	0.94	0.88	0.82	0.77	0.72	0.68	0.64	0.60	0.57	0.54	0.51	0.49	0.46	0.44	0.42	0.40	0.38	0.37
	Suction	1.08	1.00	0.94	0.87	0.82	0.77	0.72	0.68	0.64	0.61	0.57	0.54	0.52	0.49	0.47	0.45	0.43	0.41	0.39	0.37	0.36	0.34	0.33	0.31
150	Pressure	1.65	1.59	1.54	1.47	1.36	1.26	1.17	1.09	1.01	0.95	0.89	0.84	0.79	0.74	0.70	0.66	0.63	0.60	0.57	0.54	0.52	0.49	0.47	0.45
	Suction	1.33	1.23	1.15	1.08	1.01	0.95	0.89	0.84	0.79	0.75	0.71	0.67	0.64	0.61	0.58	0.55	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.39
175	Pressure	2.09	2.02	1.94	1.79	1.65	1.52	1.41	1.31	1.22	1.14	1.07	1.00	0.94	0.89	0.84	0.79	0.75	0.71	0.68	0.64	0.61	0.58	0.56	0.53
	Suction	1.57	1.46	1.37	1.28	1.19	1.12	1.05	0.99	0.94	0.89	0.84	0.80	0.75	0.72	0.68	0.65	0.62	0.59	0.57	0.54	0.52	0.50	0.48	0.46
200	Pressure	1.98	1.90	1.84	1.78	1.72	1.67	1.62	1.57	1.52	1.47	1.37	1.28	1.20	1.12	1.06	0.99	0.94	0.89	0.84	0.80	0.76	0.72	0.69	0.65
	Suction	1.84	1.71	1.60	1.49	1.40	1.31	1.23	1.16	1.10	1.04	0.98	0.93	0.88	0.84	0.80	0.76	0.73	0.69	0.66	0.64	0.61	0.58	0.56	0.54
220	Pressure	2.14	2.06	1.98	1.91	1.84	1.78	1.73	1.67	1.62	1.58	1.53	1.43	1.34	1.25	1.18	1.11	1.04	0.99	0.93	0.88	0.84	0.80	0.76	0.72
	Suction	2.03	1.92	1.79	1.67	1.56	1.47	1.38	1.30	1.23	1.16	1.10	1.04	0.99	0.94	0.89	0.85	0.81	0.78	0.74	0.71	0.68	0.65	0.63	0.60

QuadCore Karrier

Product Data Sheet

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**	**4.4**	**4.6**	**4.8**	**5.0**	**5.2**
50	Pressure	7.78	5.83	4.67	3.89	3.33	2.92	2.59	2.33	2.12	1.94	1.79	1.67	1.56	1.46	1.37	1.30	1.23	1.15	1.04	0.94	0.85	0.77	0.70	0.64
	Suction	7.78	5.83	4.67	3.89	3.33	2.92	2.59	2.33	2.12	1.94	1.72	1.48	1.29	1.14	1.01	0.90	0.81	0.73	0.66	0.60	0.55	0.50	0.47	0.43
60	Pressure	9.33	7.00	5.60	4.67	4.00	3.50	3.11	2.80	2.55	2.33	2.15	2.00	1.87	1.75	1.65	1.56	1.47	1.40	1.33	1.25	1.13	1.04	0.95	0.87
	Suction	9.33	7.00	5.60	4.67	4.00	3.50	3.11	2.80	2.55	2.33	2.10	1.81	1.58	1.39	1.23	1.10	0.98	0.89	0.81	0.73	0.67	0.62	0.57	0.53
80	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	2.33	2.20	2.07	1.96	1.87	1.78	1.70	1.55	1.41	1.29	1.19
	Suction	12.44	9.33	7.47	6.22	5.33	4.67	4.15	3.73	3.39	3.11	2.85	2.46	2.14	1.88	1.67	1.49	1.34	1.21	1.09	1.00	0.91	0.84	0.77	0.71
100	Pressure	15.56	11.67	9.33	7.78	6.67	5.83	5.19	4.67	4.24	3.89	3.59	3.33	3.11	2.92	2.75	2.59	2.46	2.33	2.22	2.12	1.96	1.78	1.63	1.50
	Suction	15.56	11.67	9.33	7.78	6.67	5.83	5.19	4.67	4.24	3.89	3.59	3.13	2.73	2.40	2.12	1.89	1.70	1.53	1.39	1.27	1.16	1.06	0.98	0.91
125	Pressure	18.21	13.47	10.65	8.78	7.46	6.49	5.74	5.14	4.66	4.26	3.93	3.64	3.39	3.18	2.99	2.82	2.67	2.54	2.42	2.31	2.21	2.12	2.03	1.91
	Suction	17.78	13.09	10.31	8.48	7.20	6.25	5.53	4.96	4.50	4.12	3.80	3.53	3.29	3.07	2.72	2.43	2.18	1.97	1.78	1.63	1.49	1.37	1.26	1.16
150	Pressure	18.23	13.49	10.66	8.79	7.47	6.49	5.74	5.14	4.65	4.25	3.92	3.63	3.39	3.17	2.98	2.82	2.67	2.53	2.41	2.30	2.20	2.11	2.03	1.95
	Suction	17.80	13.09	10.30	8.47	7.18	6.23	5.51	4.94	4.47	4.09	3.78	3.50	3.27	3.07	2.89	2.73	2.59	2.42	2.20	2.00	1.83	1.68	1.55	1.43
175	Pressure	22.94	17.01	13.46	11.10	9.44	8.20	7.24	6.49	5.87	5.36	4.94	4.58	4.26	3.99	3.75	3.54	3.35	3.18	3.03	2.89	2.77	2.65	2.54	2.45
	Suction	22.50	16.60	13.08	10.77	9.13	7.92	7.00	6.27	5.67	5.19	4.78	4.43	4.13	3.87	3.64	3.44	3.18	2.87	2.60	2.37	2.17	1.99	1.84	1.70
200	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	3.33	3.14	2.96	2.81	2.67	2.54	2.42	2.32	2.22	2.13	2.05
	Suction	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	3.33	3.14	2.96	2.81	2.67	2.54	2.42	2.32	2.22	2.13	1.99
220	Pressure	19.56	14.67	11.73	9.78	8.38	7.33	6.52	5.87	5.33	4.89	4.51	4.19	3.91	3.67	3.45	3.26	3.09	2.93	2.79	2.67	2.55	2.44	2.35	2.26
	Suction	19.56	14.67	11.73	9.78	8.38	7.33	6.52	5.87	5.33	4.89	4.51	4.19	3.91	3.67	3.45	3.26	3.09	2.93	2.79	2.67	2.55	2.44	2.35	2.22
		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**	**8.2**	**8.4**	**8.6**	**8.8**	**9.0**	**9.2**	**9.4**	**9.6**	**9.8**	**10.0**
50	Pressure	0.58	0.53	0.49	0.45	0.41	0.38	0.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suction	0.40	0.37	0.35	0.32	0.30	0.28	0.27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	Pressure	0.81	0.74	0.68	0.63	0.58	0.53	0.49	0.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suction	0.49	0.45	0.42	0.39	0.37	0.35	0.33	0.31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	Pressure	1.09	1.01	0.94	0.87	0.82	0.76	0.72	0.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suction	0.66	0.61	0.57	0.54	0.50	0.47	0.44	0.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100	Pressure	1.38	1.27	1.18	1.10	1.02	0.96	0.90	0.84	0.79	0.75	0.70	0.67	0.63	0.60	0.57	0.54	0.51	0.49	-	-	-	-	-	-
	Suction	0.84	0.78	0.73	0.68	0.64	0.60	0.56	0.53	0.50	0.47	0.45	0.42	0.40	0.38	0.36	0.35	0.33	0.32	-	-	-	-	-	-
125	Pressure	1.76	1.62	1.50	1.40	1.30	1.21	1.14	1.07	1.00	0.94	0.89	0.84	0.80	0.76	0.72	0.68	0.65	0.62	0.59	0.56	0.54	0.52	0.49	0.47
	Suction	1.08	1.00	0.94	0.87	0.82	0.77	0.72	0.68	0.64	0.61	0.57	0.54	0.52	0.49	0.47	0.45	0.43	0.41	0.39	0.37	0.36	0.34	0.33	0.31
150	Pressure	1.88	1.81	1.75	1.69	1.59	1.48	1.38	1.30	1.22	1.15	1.08	1.02	0.97	0.92	0.87	0.83	0.79	0.75	0.71	0.68	0.65	0.62	0.60	0.57
	Suction	1.33	1.23	1.15	1.08	1.01	0.95	0.89	0.84	0.79	0.75	0.71	0.67	0.64	0.61	0.58	0.55	0.52	0.50	0.48	0.46	0.44	0.42	0.40	0.39
175	Pressure	2.36	2.27	2.18	2.02	1.88	1.75	1.64	1.53	1.44	1.35	1.28	1.20	1.14	1.08	1.02	0.97	0.92	0.88	0.84	0.80	0.77	0.73	0.70	0.67
	Suction	1.57	1.46	1.37	1.28	1.19	1.12	1.05	0.99	0.94	0.89	0.84	0.80	0.75	0.72	0.68	0.65	0.62	0.59	0.57	0.54	0.52	0.50	0.48	0.46
200	Pressure	1.98	1.90	1.84	1.78	1.72	1.67	1.62	1.57	1.52	1.48	1.44	1.40	1.36	1.29	1.22	1.16	1.10	1.04	0.99	0.95	0.90	0.86	0.83	0.79
	Suction	1.84	1.71	1.60	1.49	1.40	1.31	1.23	1.16	1.10	1.04	0.98	0.93	0.88	0.84	0.80	0.76	0.73	0.69	0.66	0.64	0.61	0.58	0.56	0.54
220	Pressure	2.17	2.10	2.02	1.96	1.89	1.83	1.78	1.73	1.68	1.63	1.59	1.54	1.50	1.42	1.34	1.27	1.21	1.15	1.09	1.04	0.99	0.95	0.91	0.87
	Suction	2.06	1.92	1.79	1.67	1.56	1.47	1.38	1.30	1.23	1.16	1.10	1.04	0.99	0.94	0.89	0.85	0.81	0.78	0.74	0.71	0.68	0.65	0.63	0.60

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.

QuadCore Karrier

Product Data Sheet