ARUP

British Airways Property Services

FSU Hangar Cladding

Planning Submission Design and Access Statement

Reference:

P01 | 23 January 2026

Job number 308105-00

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Contents

Appendices

1. The site and building

The Fleet Support Unit (FSU) hangar is situated on the British Airways maintenance base at the east end of Heathrow Airport. It was opened in 1972 and is used primarily for casualty maintenance of the BA aircraft fleet. It is contiguous with the pre-existing Technical Block E (TBE) hangar.

The hangar measures approximately 95m by 95m on plan and is a drive-through facility with large-format hangar slab doors both the north and south elevations. The structure is a steel frame.

The roof was completely reclad in 1996, mainly using insulated composite panels but with sections of polycarbonate roof panels to provide natural lighting to the hangar space.

The west elevation comprises the original low-level single glazed Georgian-wired strip windows above a brickwork plinth, with the remainder of the elevation, reclad in 1997, using similar panels to the roof, punctuated with vertical translucent fibreglass (GRP) panels.

The east elevation is elevated over the adjoining TBE building and was reclad similarly to west elevation in 1997.

The hangar doors were completely replaced in 2024 (north) and 2025 (south). The new doors are clad primarily with insulated composite cladding panels and aluminium-framed glass windows, as shown in Figure 1.

Figure 1 – New hangar doors (north)

2. The proposals

The work proposed under this application is described in the following sections. Information regarding the particular materials proposed is provided in Appendix A.

2.1 West elevation

- The low-level brickwork plinth will be coated with a through-coloured render. Colour: grey.
- The low-level strip windows will be replaced with new aluminium-framed windows with clear double-glazed units. Frame colour: dark blue.
- The composite panel wall cladding will be replaced with similar panels, Kingspan AWP (Architectural Wall Panel). Colour to match existing (Hamlet).
- The GRP translucent panels will be replaced with aluminium-framed windows with clear glazing, as used on the new hangar doors. Frame colour: dark blue.
- The exposed steel columns at either end of the elevation will be repainted. Colour: dark blue.
- The pedestrian fire escape doors will be replaced with similar.
- The existing British Airways illuminated sign at high level will be retained as is.

2.2 East elevation

- The composite panel wall cladding will be replaced with similar panels, Kingspan AWP (Architectural Wall Panel). Colour to match existing (Hamlet).
- The GRP translucent panels will be replaced with aluminium-framed windows with clear glazing, as used on the new hangar doors. Frame colour: dark blue. The new windows will be positioned slightly higher on the elevation to allow more light to reach the hangar floor.
- The exposed steel columns at either end of the elevation will be repainted. Colour: dark blue.
- Two redundant ventilation louvres will be removed and the resulting openings clad over.
- The lean-to pipe enclosure will be repainted. Colour to match existing (Hamlet).

2.3 North and south elevations

The north and south elevations are predominantly occupied by the new hangar doors. Work to these elevations is limited to replacing the relatively small areas of composite panel wall cladding, primarily above the doors. The replacement panels will be the same as those on the west and east elevations, with the colour matching the door panels and the new cladding on the west and east elevations (Hamlet).

Replacement galvanised steel handrails will be provided at roof level at the ends of the elevations. A new cableline restraint system will also be provided to the north and south door canopy roofs to facilitate safe maintenance access where none currently exists. A short vertical access ladder will also be provided at each end of both elevations to allow safe access to the canopy roofs.

3. Purpose

The above-mentioned proposals are being made with a view to providing an improved weather and thermal envelope for the building for the next 20-30 years. They will also provide a fresh appearance to the currently dilapidated elevations, in line with the appearance of the new hangar doors and creating a new-build look to this prominent 55-year old structure.

The new wall cladding and windows will also provide improved fire performance.

The proposed new cableline restraint systems will provide improved maintenance access to the north and south canopy roofs.

4. Design concept

The replacement cladding panels have been selected to be similar in appearance to the existing cladding, again using concealed fixings.

The frames of the replacement aluminium windows will be powder coated in dark blue, reflecting the materials and finishes used on the new hangar doors.

The new band of render covering the low-level brickwork on the west elevation is intended to provide a robust and refreshed plinth to the building.

The use of a dark blue decorative finish to the columns at each corner frames the building and accentuates these major structural elements.

5. Access

The proposals do not affect the existing access to or around the site.

Maintenance access will be improved by the provision of new cableline restraint systems to the north and south door canopy roofs.

Appendix A

Product data sheets

A.1 Contents

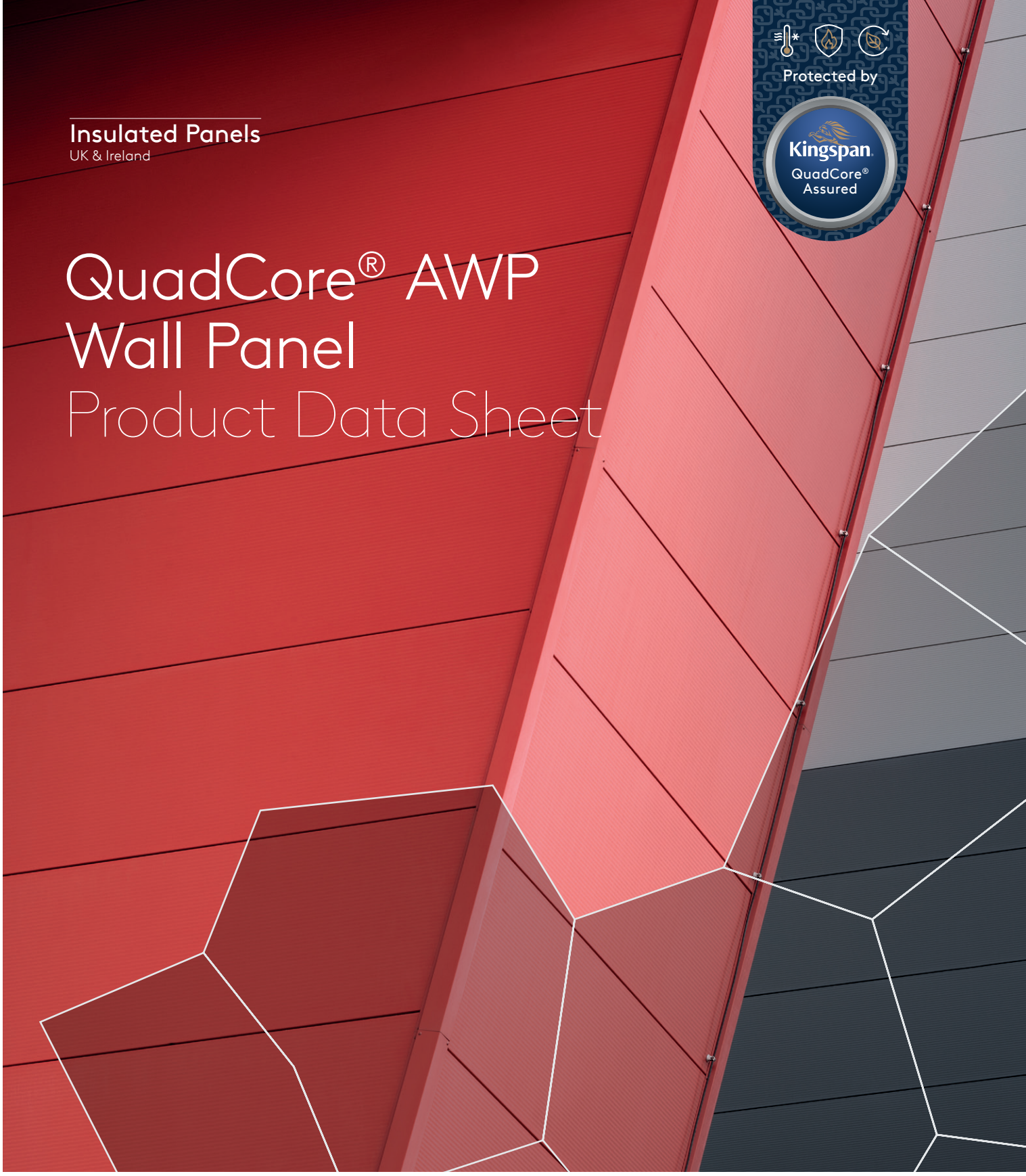
Material	Proposed use
Kingspan Quadcore AWP wall panels (Euro-box profile)	Replacement of existing wall cladding
SAS SF52 curtain wall system	Replacement of existing GRP wall panels
SAS PURe window system	Replacement of west elevation low-level strip windows
Weberpral M through-coloured render	Covering west elevation brickwork plinth

Insulated Panels
UK & Ireland

Protected by
Kingspan
QuadCore®
Assured

QuadCore® AWP Wall Panel

Product Data Sheet



POWERED BY
QuadCore®
TECHNOLOGY

Kingspan®

Product Data

QuadCore® AWP Panel Range

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

Profile Options	Coating Options			Non-standard Cover Widths
	XL Forté	Spectrum	Altaris	
Convex KS600-1000 CX 	✓	✓	✓	600-1000 mm in 66.66 mm increments
Euro-Box KS600-1000 EB 	✓	✓	✓	600-1000 mm in 100 mm increments
Flat KS600-1000 FL / Flat-Stucco KS600-1000 FL-S 	✓ Flat	✓ Flat-Stucco	✓ Flat-Stucco	600-1000 mm in 1 mm increments
Mini-Micro KS600-1000 MM 	✓	✓	✓	600-1000 mm in 8.33 mm increments
Micro-Rib KS600-1000 MR 	✓	✓	✓	600-1000 mm in 20 mm increments
Plank KS600-1000 PL 	✓	✓	✓	600-1000mm in 100 mm increments
Tramline KS1000 TL 	✓	✓	✓	1000 mm only
Wave KS600-1000 WV 	✓	✓	✓	600-1000 mm in 100 mm increments

Product Data

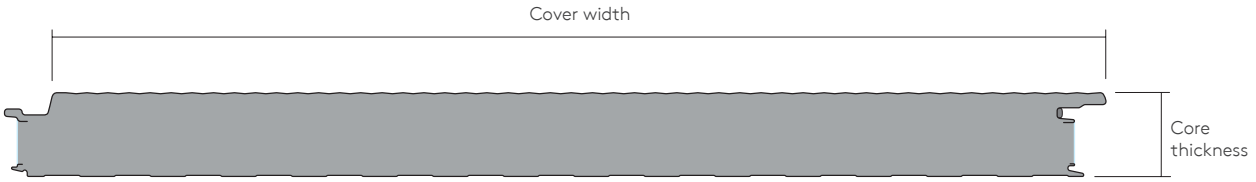
Applications

QuadCore® AWP Wall Panel is a range of secret-fix wall panels that offer freedom of design and high performing insulated panel solutions to architects. The wide range of profiles on offer go beyond traditional insulated panel designs. The QuadCore® AWP Wall Panel range is available in nine distinct profiles, in a variety of panel widths and can be installed both horizontally and vertically.

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).



Dimensions, Weight & Thermal Performance

	Convex, Euro-Box, Flat / Flat-Stucco, Mini-Micro, Micro-Rib, Plank, Tramline & Wave										
Core Thickness (mm)	**45**	**54**	**60**	**70**	**74**	**80**	**90**	**100**	**120**	**140**	**150**
U-Value (W/m²K)	0.46	0.35	0.32	0.27	0.25	0.23	0.20	0.19	0.15	0.13	0.12
Weight (kg/m²) - *Convex, Euro-Box, Flat / Flat-Stucco, Mini-Micro, Micro-Rib, Tramline & Wave*	8.7	9.1	9.3	9.7	9.8	10.1	10.5	10.8	11.6	12.4	12.7
Weight (kg/m²) - *Plank*	10.3	10.6	10.8	11.2	11.4	11.6	12.0	12.3	13.1	13.9	14.2

The QuadCore® insulation used in QuadCore® AWP Wall Panel has a Thermal Conductivity (λ) of 0.018 W/m.K

QuadCore® AWP 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 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 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 AWP Product Family 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

Fire resistance classifications are subject to panel thickness, orientation, method of assembly, and steel coating. Please contact Kingspan Tech-eXchange for project specific details.

Insurer Approvals

QuadCore® AWP Wall Panels are tested to:

- LPS 1181 Part 1: Issue 1.2 Requirements and tests for built-up cladding and sandwich panel systems for use as the external envelope of buildings certified to:
  - LPS 1181-1 Grade EXT-B under the certified name Kingspan QuadCore® KS600 – 1200 AWP, MR, FL, FL-S, EB, WV, MM, CX, PL, KS1000 TL for thicknesses 45 – 150 mm.
  - LPS 1181-1 Grade EXT-A30 under the certified name Kingspan QuadCore® KS1000 AWP for thicknesses 80 – 150 mm.
- FM 4880 approval standard for class 1 fire rating of building panels or interior finish materials for thicknesses:
  - 45 – 150 mm and panel widths of 900 mm and 1000 mm.
  - 74 – 150 mm and panel width of 600 mm, 900 mm and 1000 mm.
- FM 4881 approval standard for class 1 exterior wall systems for thicknesses:
  - 45 – 150 mm and panel widths of 900 mm and 1000 mm.
  - 74 – 150 mm and panel width of 600 mm, 900 mm and 1000 mm.
- FM 4882 approval standard for class 1 interior wall and ceiling materials or systems for smoke sensitive occupancies for thicknesses:
  - 45 – 150 mm and panel widths of 900 mm and 1000 mm.
  - 74 – 150 mm and panel width of 600 mm, 900 mm and 1000 mm.

FM approvals are subject to the following certified names:

- For 1000 mm widths: KS1000AWP, KS1000MR, KS1000MM, KS1000EB, KS1000TL, KS1000PL, KS1000FL, KS1000FL-S, KS1000CX, KS1000WV.
- For 900 mm widths: KS900AWP, KS900MR, KS900MM, KS900EB, KS900PL, KS900FL, KS900FL-S, KS900CX, KS900WV.
- For 600 mm widths: KS600AWP, KS600MR, KS600MM, KS600EB, KS600PL, KS600FL, KS600FL-S, KS600CX, KS600WV.

Insurer approvals are large scale testing regimes that provide objective third-party testing, which is underpinned by quarterly, bi-annual and annual factory surveillance audits (depending on the region) to verify compliance. Insurer approvals are subject to panel thickness, cover width, orientation, method of assembly, steel coating and manufacturing facility. Please contact Kingspan Tech-eXchange for further information.

FM APPROVED

LPS 1181-1: Issue 1.2
Cert: 186f & 260f
LPCB Ref: 260f/02

LPS 1181-1: Issue 1.2
Cert: 186f & 260f
LPCB Ref: 260f/07 & 260f/08

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'. QuadCore® Insulated Panel systems have Environmental Product Declarations in accordance with the requirements of EN 15804 + A2: 2019 for 100 mm thickness.

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 $3m^3/hr/m^2$ 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.

Product Data

Acoustic

Sound Reduction Index (SRI)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
SRI (dB)	20	15	17	23	18	25	40	46

QuadCore® AWP Wall Panel has a single figure weighted sound reduction Rw = 24dB. 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 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.

The Kingspan XL Forté range is not suitable for external wall applications above 18 m in height. For more information please contact Kingspan Tech-eXchange.

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

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® AWP Wall Panel 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 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 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 40 years coating performance

Product Data

Packing

QuadCore® AWP Wall Panel is stacked with weather sheet upward. 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.

Core Thickness (mm)	45	54	60	70	74	80	90	100	120	140	150
No. of Panels per Pack	25	20	18	16	15	13	12	11	9	6	5

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	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
45	Pressure	7.83	5.87	4.70	3.92	3.36	2.94	2.61	2.35	2.14	1.80	1.53	1.32	1.15	1.01	0.88	0.76	0.67	0.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Suction	7.83	5.87	4.70	3.92	3.36	2.94	2.54	2.06	1.70	1.43	1.22	1.05	0.91	0.80	0.70	0.54	0.42	0.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
54	Pressure	9.44	7.08	5.67	4.72	4.05	3.54	3.15	2.83	2.58	2.21	1.88	1.62	1.41	1.24	1.10	0.98	0.88	0.79	0.72	0.64	0.58	-	-	-	-	-	-	-	-	-	-	-	-
	Suction	9.44	7.08	5.67	4.72	4.05	3.54	3.06	2.48	2.05	1.72	1.47	1.27	1.10	0.97	0.86	0.77	0.69	0.62	0.55	0.45	0.36	-	-	-	-	-	-	-	-	-	-	-	-
60	Pressure	10.52	7.89	6.31	5.26	4.51	3.94	3.51	3.16	2.87	2.48	2.11	1.82	1.59	1.40	1.24	1.10	0.99	0.89	0.81	0.74	0.68	0.62	0.56	0.51	-	-	-	-	-	-	-	-	-
	Suction	10.52	7.89	6.31	5.26	4.51	3.94	3.41	2.76	2.28	1.92	1.64	1.41	1.23	1.08	0.96	0.85	0.77	0.69	0.63	0.57	0.52	0.45	0.37	0.31	-	-	-	-	-	-	-	-	-
70	Pressure	12.31	9.23	7.39	6.16	5.28	4.62	4.10	3.69	3.36	2.95	2.52	2.17	1.89	1.66	1.47	1.31	1.18	1.06	0.96	0.88	0.80	0.74	0.68	0.63	0.58	0.54	0.51	-	-	-	-	-	-
	Suction	12.31	9.23	7.39	6.16	5.28	4.62	3.99	3.24	2.67	2.25	1.91	1.65	1.44	1.26	1.12	1.00	0.90	0.81	0.73	0.67	0.61	0.56	0.52	0.48	0.44	0.41	0.34	-	-	-	-	-	-
74	Pressure	13.03	9.77	7.82	6.51	5.58	4.88	4.34	3.91	3.55	3.15	2.68	2.31	2.01	1.77	1.57	1.40	1.25	1.13	1.03	0.94	0.86	0.79	0.72	0.67	0.62	0.58	0.54	0.50	0.47	-	-	-	-
	Suction	13.03	9.77	7.82	6.51	5.58	4.88	4.23	3.42	2.83	2.38	2.03	1.75	1.52	1.34	1.18	1.06	0.95	0.86	0.78	0.71	0.65	0.59	0.55	0.51	0.47	0.44	0.41	0.37	0.31	-	-	-	-
80	Pressure	14.10	10.58	8.46	7.05	6.04	5.29	4.70	4.23	3.85	3.44	2.93	2.53	2.20	1.93	1.71	1.53	1.37	1.24	1.12	1.02	0.94	0.86	0.79	0.73	0.68	0.63	0.59	0.55	0.52	0.48	0.45	-	-
	Suction	14.10	10.58	8.46	7.05	6.04	5.29	4.58	3.71	3.06	2.57	2.19	1.89	1.65	1.45	1.28	1.14	1.03	0.93	0.84	0.77	0.70	0.64	0.59	0.55	0.51	0.47	0.44	0.41	0.39	0.36	0.32	-	-
90	Pressure	15.89	11.92	9.54	7.95	6.81	5.96	5.30	4.77	4.33	3.94	3.36	2.90	2.52	2.22	1.96	1.75	1.57	1.42	1.29	1.17	1.07	0.99	0.91	0.84	0.78	0.72	0.67	0.63	0.59	0.55	0.52	0.49	0.46
	Suction	15.89	11.92	9.54	7.95	6.81	5.96	5.16	4.18	3.45	2.90	2.47	2.13	1.86	1.63	1.45	1.29	1.16	1.04	0.95	0.86	0.79	0.73	0.67	0.62	0.57	0.53	0.50	0.46	0.43	0.41	0.38	0.36	0.34
100	Pressure	16.88	12.66	10.13	8.44	7.23	6.33	5.63	5.06	4.60	4.22	3.80	3.27	2.85	2.51	2.22	1.98	1.78	1.60	1.45	1.33	1.21	1.11	1.03	0.95	0.88	0.82	0.76	0.71	0.67	0.63	0.59	0.56	0.52
	Suction	16.88	12.66	10.13	8.44	7.23	6.33	5.63	4.65	3.84	3.23	2.75	2.37	2.07	1.82	1.61	1.43	1.29	1.16	1.05	0.96	0.88	0.81	0.74	0.69	0.64	0.59	0.55	0.52	0.48	0.45	0.43	0.40	0.38
120	Pressure	16.95	12.71	10.17	8.47	7.26	6.36	5.65	5.08	4.62	4.24	3.91	3.63	3.39	3.18	2.93	2.61	2.35	2.12	1.92	1.75	1.60	1.47	1.35	1.25	1.16	1.08	1.01	0.94	0.88	0.83	0.78	0.73	0.69
	Suction	16.95	12.71	10.17	8.47	7.26	6.36	5.65	5.08	4.62	3.88	3.31	2.85	2.48	2.18	1.93	1.72	1.55	1.40	1.27	1.15	1.06	0.97	0.89	0.83	0.77	0.71	0.66	0.62	0.58	0.55	0.51	0.48	0.46
140	Pressure	16.95	12.71	10.17	8.47	7.26	6.36	5.65	5.08	4.62	4.24	3.91	3.63	3.39	3.18	2.99	2.82	2.68	2.47	2.24	2.04	1.87	1.72	1.58	1.46	1.36	1.26	1.18	1.10	1.03	0.97	0.91	0.86	0.81
	Suction	16.95	12.71	10.17	8.47	7.26	6.36	5.65	5.08	4.62	4.24	3.86	3.33	2.90	2.55	2.26	2.02	1.81	1.63	1.48	1.35	1.23	1.13	1.04	0.97	0.90	0.83	0.78	0.73	0.68	0.64	0.60	0.56	0.53
150	Pressure	16.95	12.71	10.17	8.47	7.26	6.36	5.65	5.08	4.62	4.24	3.91	3.63	3.39	3.18	2.99	2.82	2.68	2.54	2.41	2.19	2.01	1.84	1.70	1.57	1.46	1.35	1.26	1.18	1.10	1.04	0.97	0.92	0.87
	Suction	16.95	12.71	10.17	8.47	7.26	6.36	5.65	5.08	4.62	4.24	3.91	3.57	3.11	2.73	2.42	2.16	1.94	1.75	1.59	1.45	1.32	1.22	1.12	1.04	0.96	0.89	0.83	0.78	0.73	0.68	0.64	0.61	0.57

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.
8 For QuadCore® AWP KS1000 FL/FL-S, contact the Tech-eXchange Team for Load / Span Tables.

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	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
45	Pressure	7.83	5.87	4.70	3.92	3.36	2.94	2.61	2.33	2.10	1.80	1.53	1.32	1.15	1.01	0.90	0.80	0.72	0.65	0.59	0.54	0.49	0.45	0.41	0.38	-	-	-	-	-	-	-	-	-
	Suction	7.83	5.87	4.70	3.92	3.36	2.94	2.54	2.06	1.70	1.43	1.22	1.05	0.91	0.80	0.71	0.64	0.57	0.51	0.47	0.43	0.39	0.36	0.33	0.30	-	-	-	-	-	-	-	-	-
54	Pressure	9.44	7.08	5.67	4.72	4.05	3.54	3.15	2.83	2.56	2.21	1.88	1.62	1.41	1.24	1.10	0.98	0.88	0.79	0.72	0.66	0.60	0.55	0.51	0.47	0.44	0.41	-	-	-	-	-	-	-
	Suction	9.44	7.08	5.67	4.72	4.05	3.54	3.06	2.48	2.05	1.72	1.47	1.27	1.10	0.97	0.86	0.77	0.69	0.62	0.56	0.51	0.47	0.43	0.40	0.37	0.34	0.32	-	-	-	-	-	-	-
60	Pressure	10.52	7.89	6.31	5.26	4.51	3.94	3.51	3.16	2.86	2.48	2.11	1.82	1.59	1.40	1.24	1.10	0.99	0.89	0.81	0.74	0.68	0.62	0.57	0.53	0.49	0.46	0.42	0.40	-	-	-	-	-
	Suction	10.52	7.89	6.31	5.26	4.51	3.94	3.41	2.76	2.28	1.92	1.64	1.41	1.23	1.08	0.96	0.85	0.77	0.69	0.63	0.57	0.52	0.48	0.44	0.41	0.38	0.35	0.33	0.31	-	-	-	-	-
70	Pressure	12.31	9.23	7.39	6.16	5.28	4.62	4.10	3.69	3.36	2.95	2.52	2.17	1.89	1.66	1.47	1.31	1.18	1.06	0.96	0.88	0.80	0.74	0.68	0.63	0.58	0.54	0.51	0.47	0.44	0.41	-	-	-
	Suction	12.31	9.23	7.39	6.16	5.28	4.62	3.99	3.24	2.67	2.25	1.91	1.65	1.44	1.26	1.12	1.00	0.90	0.81	0.73	0.67	0.61	0.56	0.52	0.48	0.44	0.41	0.38	0.36	0.34	0.32	-	-	-
74	Pressure	13.03	9.77	7.82	6.51	5.58	4.88	4.34	3.91	3.55	3.15	2.68	2.31	2.01	1.77	1.57	1.40	1.25	1.13	1.03	0.94	0.86	0.79	0.72	0.67	0.62	0.58	0.53	0.50	0.46	0.43	0.40	-	-
	Suction	13.03	9.77	7.82	6.51	5.58	4.88	4.23	3.42	2.83	2.38	2.03	1.75	1.52	1.34	1.18	1.06	0.95	0.86	0.78	0.71	0.65	0.59	0.55	0.51	0.47	0.44	0.41	0.38	0.36	0.33	0.31	-	-
80	Pressure	14.10	10.58	8.46	7.05	6.04	5.29	4.70	4.23	3.85	3.44	2.93	2.53	2.20	1.93	1.71	1.53	1.37	1.24	1.12	1.02	0.94	0.86	0.79	0.73	0.68	0.63	0.58	0.54	0.50	0.47	0.44	0.41	0.38
	Suction	14.10	10.58	8.46	7.05	6.04	5.25	4.58	3.71	3.06	2.57	2.19	1.89	1.65	1.45	1.28	1.14	1.03	0.93	0.84	0.77	0.70	0.64	0.59	0.55	0.51	0.47	0.44	0.41	0.39	0.36	0.34	0.32	0.30
90	Pressure	15.89	11.92	9.54	7.95	6.77	5.83	5.11	4.55	4.10	3.73	3.36	2.90	2.52	2.22	1.96	1.75	1.57	1.42	1.29	1.17	1.07	0.99	0.91	0.83	0.77	0.70	0.65	0.60	0.56	0.52	0.49	0.46	0.43
	Suction	15.89	11.92	9.50	7.73	6.49	5.58	4.89	4.18	3.45	2.90	2.47	2.13	1.86	1.63	1.45	1.29	1.16	1.04	0.95	0.86	0.79	0.73	0.67	0.62	0.57	0.53	0.50	0.46	0.43	0.41	0.38	0.36	0.34
100	Pressure	16.88	12.66	10.13	8.44	7.17	6.18	5.42	4.82	4.34	3.94	3.61	3.27	2.85	2.51	2.22	1.98	1.78	1.60	1.45	1.33	1.21	1.11	1.02	0.93	0.85	0.78	0.72	0.67	0.62	0.58	0.54	0.51	0.48
	Suction	16.88	12.66	10.06	8.19	6.88	5.91	5.18	4.61	3.84	3.23	2.75	2.37	2.07	1.82	1.61	1.43	1.29	1.16	1.05	0.96	0.88	0.81	0.74	0.69	0.64	0.59	0.55	0.52	0.48	0.45	0.43	0.40	0.38
120	Pressure	16.95	12.71	10.17	8.47	7.26	6.26	5.48	4.87	4.39	3.98	3.65	3.37	3.12	2.92	2.73	2.57	2.32	2.03	1.79	1.60	1.43	1.29	1.17	1.06	0.97	0.89	0.82	0.76	0.71	0.66	0.61	0.57	0.54
	Suction	16.95	12.71	10.17	8.28	6.95	5.97	5.22	4.64	4.18	3.79	3.31	2.85	2.48	2.18	1.93	1.72	1.55	1.40	1.27	1.15	1.06	0.97	0.89	0.83	0.77	0.71	0.66	0.62	0.58	0.55	0.51	0.48	0.46
140	Pressure	16.95	12.71	10.17	8.47	7.26	6.29	5.51	4.90	4.40	4.00	3.66	3.37	3.13	2.92	2.74	2.57	2.43	2.28	2.01	1.78	1.59	1.43	1.29	1.17	1.07	0.98	0.90	0.83	0.77	0.72	0.67	0.62	0.58
	Suction	16.95	12.71	10.17	8.30	6.96	5.98	5.23	4.64	4.17	3.79	3.47	3.20	2.90	2.55	2.26	2.02	1.81	1.63	1.48	1.35	1.23	1.13	1.04	0.97	0.90	0.83	0.78	0.73	0.68	0.64	0.60	0.56	0.53
150	Pressure	16.95	12.71	10.17	8.47	7.26	6.30	5.52	4.91	4.41	4.00	3.66	3.38	3.13	2.92	2.74	2.57	2.43	2.30	2.10	1.86	1.66	1.49	1.34	1.22	1.11	1.01	0.93	0.86	0.80	0.74	0.69	0.64	0.60
	Suction	16.95	12.71	10.17	8.31	6.97	5.99	5.23	4.64	4.17	3.79	3.47	3.20	2.97	2.73	2.42	2.16	1.94	1.75	1.59	1.45	1.32	1.22	1.12	1.04	0.96	0.89	0.83	0.78	0.73	0.68	0.64	0.61	0.57

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.
8 For QuadCore® AWP KS1000 FL/FL-S, contact the Tech-eXchange Team for Load / Span Tables.

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	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
45	Pressure	7.83	5.87	4.70	3.92	3.36	2.94	2.61	2.35	2.14	1.80	1.53	1.32	1.15	1.01	0.90	0.80	0.72	0.65	0.59	0.54	0.49	0.45	0.41	0.38	-	-	-	-	-	-	-	-	-
	Suction	7.83	5.87	4.70	3.92	3.36	2.94	2.54	2.06	1.70	1.43	1.22	1.05	0.91	0.80	0.71	0.64	0.57	0.51	0.47	0.43	0.39	0.36	0.33	0.30	-	-	-	-	-	-	-	-	-
54	Pressure	9.44	7.08	5.67	4.72	4.05	3.54	3.15	2.83	2.58	2.21	1.88	1.62	1.41	1.24	1.10	0.98	0.88	0.79	0.72	0.66	0.60	0.55	0.51	0.47	0.44	0.41	-	-	-	-	-	-	-
	Suction	9.44	7.08	5.67	4.72	4.05	3.54	3.06	2.48	2.05	1.72	1.47	1.27	1.10	0.97	0.86	0.77	0.69	0.62	0.56	0.51	0.47	0.43	0.40	0.37	0.34	0.32	-	-	-	-	-	-	-
60	Pressure	10.52	7.89	6.31	5.26	4.51	3.94	3.51	3.16	2.87	2.48	2.11	1.82	1.59	1.40	1.24	1.10	0.99	0.89	0.81	0.74	0.68	0.62	0.57	0.53	0.49	0.46	0.42	0.40	-	-	-	-	-
	Suction	10.52	7.89	6.31	5.26	4.51	3.94	3.41	2.76	2.28	1.92	1.64	1.41	1.23	1.08	0.96	0.85	0.77	0.69	0.63	0.57	0.52	0.48	0.44	0.41	0.38	0.35	0.33	0.31	-	-	-	-	-
70	Pressure	12.31	9.23	7.39	6.16	5.28	4.62	4.10	3.69	3.36	2.95	2.52	2.17	1.89	1.66	1.47	1.31	1.18	1.06	0.96	0.88	0.80	0.74	0.68	0.63	0.58	0.54	0.51	0.47	0.44	0.42	-	-	-
	Suction	12.31	9.23	7.39	6.16	5.28	4.62	3.99	3.24	2.67	2.25	1.91	1.65	1.44	1.26	1.12	1.00	0.90	0.81	0.73	0.67	0.61	0.56	0.52	0.48	0.44	0.41	0.38	0.36	0.34	0.32	-	-	-
74	Pressure	13.03	9.77	7.82	6.51	5.58	4.88	4.34	3.91	3.55	3.15	2.68	2.31	2.01	1.77	1.57	1.40	1.25	1.13	1.03	0.94	0.86	0.79	0.72	0.67	0.62	0.58	0.54	0.50	0.47	0.44	0.42	-	-
	Suction	13.03	9.77	7.82	6.51	5.58	4.88	4.23	3.42	2.83	2.38	2.03	1.75	1.52	1.34	1.18	1.06	0.95	0.86	0.78	0.71	0.65	0.59	0.55	0.51	0.47	0.44	0.41	0.38	0.36	0.33	0.31	-	-
80	Pressure	14.10	10.58	8.46	7.05	6.04	5.29	4.70	4.23	3.85	3.44	2.93	2.53	2.20	1.93	1.71	1.53	1.37	1.24	1.12	1.02	0.94	0.86	0.79	0.73	0.68	0.63	0.59	0.55	0.52	0.48	0.45	0.43	0.40
	Suction	14.10	10.58	8.46	7.05	6.04	5.29	4.58	3.71	3.06	2.57	2.19	1.89	1.65	1.45	1.28	1.14	1.03	0.93	0.84	0.77	0.70	0.64	0.59	0.55	0.51	0.47	0.44	0.41	0.39	0.36	0.34	0.32	0.30
90	Pressure	15.89	11.92	9.54	7.95	6.81	5.96	5.30	4.77	4.33	3.94	3.36	2.90	2.52	2.22	1.96	1.75	1.57	1.42	1.29	1.17	1.07	0.99	0.91	0.84	0.78	0.72	0.67	0.63	0.59	0.55	0.52	0.49	0.46
	Suction	15.89	11.92	9.54	7.95	6.81	5.96	5.16	4.18	3.45	2.90	2.47	2.13	1.86	1.63	1.45	1.29	1.16	1.04	0.95	0.86	0.79	0.73	0.67	0.62	0.57	0.53	0.50	0.46	0.43	0.41	0.38	0.36	0.34
100	Pressure	16.88	12.66	10.13	8.44	7.23	6.33	5.63	5.06	4.60	4.22	3.80	3.27	2.85	2.51	2.22	1.98	1.78	1.60	1.45	1.33	1.21	1.11	1.03	0.95	0.88	0.82	0.76	0.71	0.67	0.63	0.59	0.56	0.52
	Suction	16.88	12.66	10.13	8.44	7.23	6.33	5.63	4.65	3.84	3.23	2.75	2.37	2.07	1.82	1.61	1.43	1.29	1.16	1.05	0.96	0.88	0.81	0.74	0.69	0.64	0.59	0.55	0.52	0.48	0.45	0.43	0.40	0.38
120	Pressure	16.95	12.71	10.17	8.47	7.26	6.36	5.65	5.08	4.62	4.24	3.91	3.63	3.39	3.18	2.93	2.61	2.35	2.12	1.92	1.75	1.60	1.47	1.35	1.25	1.16	1.08	1.01	0.94	0.87	0.82	0.77	0.72	0.68
	Suction	16.95	12.71	10.17	8.47	7.26	6.36	5.65	5.08	4.61	3.88	3.31	2.85	2.48	2.18	1.93	1.72	1.55	1.40	1.27	1.15	1.06	0.97	0.89	0.83	0.77	0.71	0.66	0.62	0.58	0.55	0.51	0.48	0.46
140	Pressure	16.95	12.71	10.17	8.47	7.26	6.36	5.65	5.08	4.62	4.24	3.91	3.63	3.39	3.18	2.99	2.82	2.68	2.47	2.23	2.00	1.81	1.65	1.51	1.38	1.27	1.18	1.09	1.02	0.95	0.88	0.83	0.78	0.73
	Suction	16.95	12.71	10.17	8.47	7.26	6.36	5.64	5.06	4.60	4.21	3.86	3.33	2.90	2.55	2.26	2.02	1.81	1.63	1.48	1.35	1.23	1.13	1.04	0.97	0.90	0.83	0.78	0.73	0.68	0.64	0.60	0.56	0.53
150	Pressure	16.95	12.71	10.17	8.47	7.26	6.36	5.65	5.08	4.62	4.24	3.91	3.63	3.39	3.18	2.99	2.82	2.68	2.54	2.30	2.07	1.87	1.70	1.56	1.43	1.31	1.21	1.12	1.04	0.97	0.91	0.85	0.80	0.75
	Suction	16.95	12.71	10.17	8.47	7.26	6.36	5.63	5.05	4.59	4.20	3.88	3.57	3.11	2.73	2.42	2.16	1.94	1.75	1.59	1.45	1.32	1.22	1.12	1.04	0.96	0.89	0.83	0.78	0.73	0.68	0.64	0.61	0.57

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.
8 For QuadCore® AWP KS1000 FL/FL-S, contact the Tech-eXchange Team for Load / Span Tables.

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Sixteenth Issue | 09/12/2025

SENIOR ARCHITECTURAL SYSTEMS

SF52
Curtain Wall System
Technical Datasheet

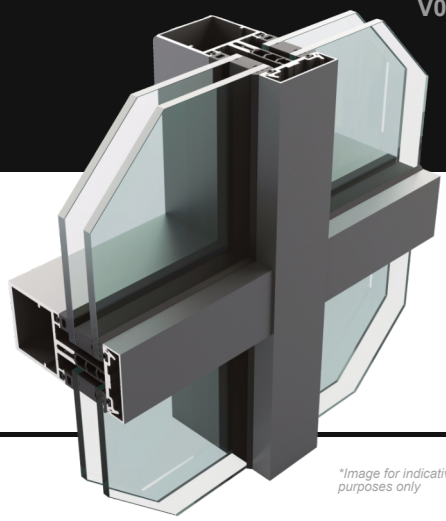


*Image for indicative purposes only

Scope

The SF52 curtain wall system has been designed to enhance thermal performance meaning the system can exceed current building regulations. It is a stick type front loaded system using spring pins and a specially designed cleat which allows square cutting throughout. The system can be either zone drained (via conventional pressure plate drainage or using a specially designed spout system through the mullion) or it can be mullion drained. The zone drained system can be assembled capped, uncapped (using the SAS toggles) or combination of the two. Glazing ranges from 6mm to 52mm. Section sizes vary from 50mm to 250mm. Specific profiles can be incorporated offering design flexibility.

Materials

- Extruded aluminium is generally Aluminium Alloy 6060.T6/ T66, 6063.T6/T66, 6082.T6 to BS EN 755-9 and EN 12020-2.
- The Gasketry is generally manufactured in accordance with BS ISO 3302-1.
- The fixings are generally A2 Stainless Steel screws.

Finishes

SF52 Curtain Wall sections are available typically in three finishes.

- Polyester Powder Coating to BS EN 12206-1 Part 1 painted in house. Surface finished to a minimum of 40 microns standard, or enhanced to suit project requirements, in accordance with ISO 9001, ISO 14001 and ISO 45001.
- Anodised finishes are to BS3897 to a minimum of 25 microns (AA25), supplied in either satin or polished finish in a limited range of colours.
- Mill Finish.

Construction

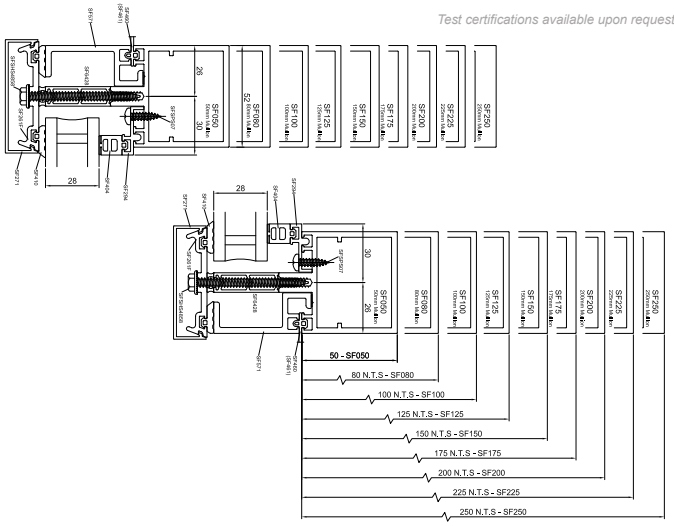
The SF52 curtain wall system utilises square cuts throughout and is joined using a specially designed cleat and spring pin within the zone drained system. The mullion drained system uses a “lap” joint. A proprietary sealant is used on all metal to metal joints in line with good working practice. All internal gaskets are designed to mate with injection moulded corner pieces and are sealed at joints. Shear blocks and reinforcing sleeves are available.

Environmental

Senior Architectural Systems is fully compliant with BS EN ISO 9001, BS EN ISO 14001, ISO 45001 and BES6001 standards. When used on projects involved in a BREEAM assessment, or within the Code for a Sustainable Built Environment, (which therefore involves the Green Guide specification) can offer significant benefits. For project specific assistance, please contact our specification team.

*Average U-values	
CEN standard (Double Glazed)	Due to the variety of profiles, mullion spacing, glass and panel specifications on each project; a specific U-value calculation will be required. Please contact your Technical Sales Manager or Architectural Advisor for more information.
CEN standard (Triple Glazed)	
Glazing	
Thickness (Mullion Drained)	6mm - 50mm
Thickness (With SG)	28mm - 43mm
Testing	
Security	PAS24 & SBD
CWCT Sequence B / EN13830	Air Permeability 600Pa
	Water Tightness 600Pa
	Wind Resistance 2400Pa
Acoustics	
Acoustic Performance (IGU Dependent)	46dB reduction is achievable
Flanking	
Horizontal Flanking (IGU Dependant)	57dB reduction is achievable
Vertical Flanking (IGU Dependant)	54dB reduction is achievable
Transom Loads	
SF52 Transom Loads	350kg Standard
	500kg Reinforced

Test certifications available upon request.



Secured by Design

SBD

Official Police Security Initiative

PAS 24

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SENIOR ARCHITECTURAL SYSTEMS

PURe® Casement Window System

Technical Datasheet

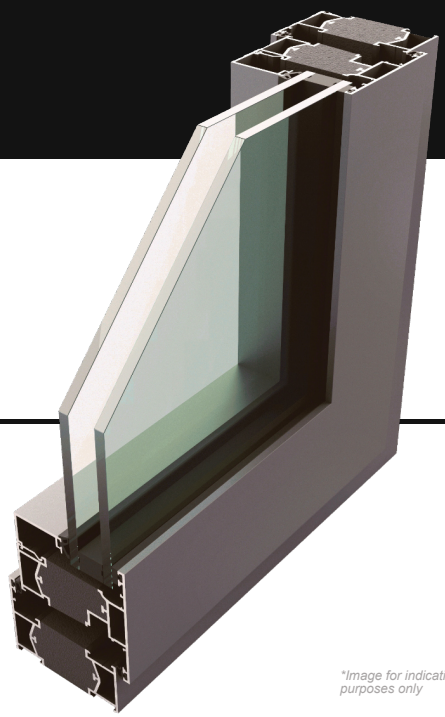


*Image for indicative purposes only

Scope

The PURe® Casement window has been designed to meet current and future building regulations, with impressive thermal performance. PURe® is an evolved generation of aluminium window systems manufactured in the UK. It combines the long life and low maintenance of powder coated aluminium with a patented high insulation PUR foam thermal barrier. PURe® Casement windows are capable of accepting glazing up to 50mm thick.

Materials

- Extruded aluminium is generally Aluminium Alloy 6060.T6/T66, 6063.T6/T66, 6082.T6 to BS EN 755-9 and EN 12020-2.
- Polyamide thermal barriers are manufactured in accordance with PA66 GF25.
- The Gasketry is generally manufactured in accordance with BS ISO 3302-1.
- The fixings are generally A2 Stainless Steel screws.

Finishes

PURe® Casement window sections are available typically in two finishes.

- Polyester Powder Coating to BS EN 12206-1 Part 1 painted in house. Surface finish to a minimum of 40 microns standard, or enhanced to suit project requirements, in accordance with ISO 9001, ISO 14001 and ISO 45001.
- Anodised finishes are to BS3897 to a minimum of 25 microns (AA25), supplied in either satin or polished finish in a limited range of colours.

Construction

PURe® is constructed using mitred corners, joined with crimped cleats; alignment chevrons assist in clean, accurate mitres. Integral transoms and mullions are scribed around the outer frames and fixed with either screwports or shearblocks.

A proprietary sealant is used on all metal joints in line with good practice. Opening window frames are designed to be inserted directly into the outer frames using friction stays.

Environmental

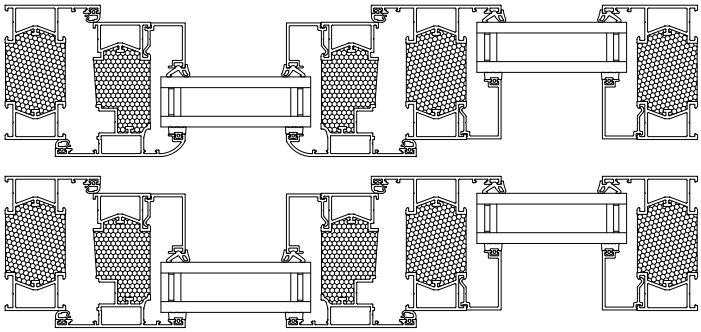
Senior Architectural Systems is fully compliant with BS EN ISO 9001, BS EN ISO 14001, ISO 45001 and BES6001 standards. When used on projects involved in a BREEAM assessment, or within the Code for a Sustainable Built Environment, (which therefore involves the Green Guide specification) can offer significant benefits. For project specific assistance, please contact our specification team.

Typical Sizes	Width (mm)	Height (mm)
Top Hung	1500/ 2000	2000*
Side Hung	1000	1500
****Average U-Values**		
Residential CEN standard (Double Glazed)	1.2 W/m²K	
Residential CEN standard (Triple Glazed)	0.76 W/m²K	
Commercial CEN standard (Double Glazed)	1.1 W/m²K	
Commercial CEN standard (Triple Glazed)	0.73 W/m²K	
Glazing		
Thickness	28mm - 50mm (48mm for radius)	
Testing		
Security	PAS24 & SBD	
BS6375 -1	Air Permeability 600Pa	
	Water Tightness 600Pa	
	Wind Resistance 2400Pa	
BS6375 - 2	✓	
Acoustics		
Acoustics performance (IGU Dependent)	42dB reduction is achievable	

*See manual for table layouts

**All calculations are based on CEN sized windows at 1230mm x 1480mm ±25%.

Test certifications available upon request.



Secured by Design

SBD

Official Police Security Initiative

PAS 24

A++

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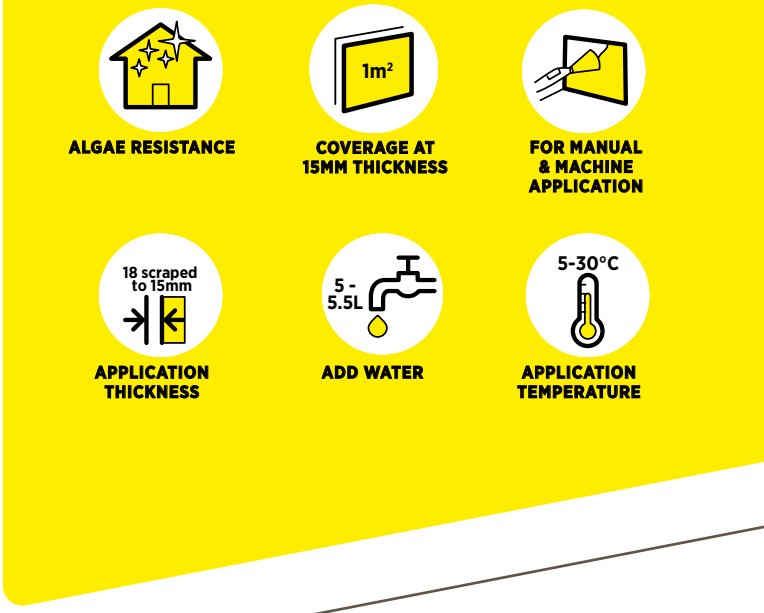
weberpral M

Through-coloured, one-coat render

- For application to most suitably prepared brick and blockwork
- Offers a variety of ways to achieve distinct architectural features
- Durable and weather resistant



About this product

weberpral M is a one-coat, ready-mixed, cementitious, weather resistant, external decorative, through-coloured render, suitable for most types of brick or blockwork. The through colour and one coat features allow fast application with shorter programme periods, thereby reducing associated scaffolding and site costs and permitting the earlier completion of ground works.

Features and benefits

- One coat for fast application and short programme periods
- Formulated to be spray applied by render pump for faster application
- Through coloured for low maintenance – decoration not required
- Weather resistant
- Algae resistance
- Can be finished in a number of textures and styles
- BBA approved certificate no. 17/5464

Uses

- Weather resistant, decorative finish for new build or refurbishment projects
- Can produce a range of finishes to decorate and improve the weather resistance for suitable masonry substrates:
    - Scraped
    - Dry dash
    - Sprayed roughcast
- Ashlar and quoin features
- Use for entire elevations, feature panels or smaller areas

Colours

weberpral M is available in a range of 24 colours. Specifiers should consult the **weberpral M** colour chart and obtain samples prior to specification.

Preparation

Scaffolding must be independently tied to allow for an uninterrupted application. Any faults in the structure, particularly those which may lead to moisture penetration must be rectified.

To avoid dampness and discolouration rendering should be avoided below DPC and within 150mm of ground level. All surfaces must be sound, clean, suitably dry and free of any material which may impair adhesion. The substrate should be suitable for rendering with a designation III mix (1:1:6).

Arrises and feature stops may be formed using clean straight timber battens. Alternatively, suitable beads may be used but, with a scraped finish, these will be evident and must be accepted as a feature.

Please note that scraped renders may, during the scraping process, tend to spall away from the nose of some angle beads. Refer to Weber's Technical Department for advice on suitable profiles.

Mask as required. Edging tape must be removed before the material has dried. Expansion joints should be included as required by the substrate and carried through all applied materials.

Do not apply to gypsum plaster or previously painted surfaces

Mixing

weberpral M should be mixed with 5 - 5½ litres of clean water per bag using either a suitable render spray machine or drill and whisk. To ensure colour consistency, the materials required for complete and adjoining panels should be of the same batch number or be thoroughly mixed together before use.

For best results, use as little water as possible and mix to give a workable consistency.

Note: **weberpral M** may stiffen on standing. Remix product to regain a workable consistency but do not add any more water.

Application

To maintain colour consistency, panels should be completed in a continuous sequence around the building

We recommend that beads are fixed using our dedicated adhesive - **weberend bead adhesive**. This can set up to 4 times faster compared to standard mortar options - setting sufficiently within two hours (at 20°C) to allow rendering to progress.

Sprayed roughcast finish

Depending on the required finished thickness, the initial base coat is applied and ruled level to a minimum of 15mm for light to moderate exposure and 20mm for severe. A second texture pass is applied between 1 and 2 hours after the first to form a single monolithic coat.*

NOTE: the texture coat is not deemed as part of the overall finished thickness due to not being of an even layer.

Scraped Finish

weberpral M should be applied to the suitable substrate in a one or two-pass operation to a minimum thickness of 18mm, or to a maximum thickness of 28mm. (2 - 3mm will be removed by the scraping process to give a finished thickness of minimum 15mm, maximum 25mm.) It should then be ruled level and allowed to harden for between 5 and 16 hours. Sometimes a longer period may be necessary depending on weather and background conditions.

When **weberpral M** is green (set but not fully hardened) the laitance should be removed using an 'I bar' to create a flat even surface followed by the nail float in a circular action to provide an even finish. Thoroughly brush down the surface of the scraped finish using a soft bristle brush.

Dry dash finish

Apply **weberpral M** by render pump or traditional methods in the usual manner. For 15mm render thickness apply an initial pass to a nominal 10mm, rule level. When sufficiently hard but still green (typically between 1 & 16 hours later depending upon climatic conditions and suction provided by the substrate) apply a secondary butter/ dash receiver coat 5mm in thickness.

Please note for a 20mm finished thickness apply a 15mm initial pass, followed by 5mm under the same guidance. Attempting to dash into a full thickness of render, not applied in layers may lead to slumping and loss of the aggregate into the render.

A flowing edge must be maintained to the render which must not be allowed to skin over before the stone is applied.

On completion aggregate should be lightly tamped into the render with a wood or plastic float to ensure that a good bond is obtained. All aggregate should be washed and reasonably dry. The optimum size of aggregate is between 4 - 8mm.

Ashlar features

Apply **weberpral M** in two passes to an initial thickness of between 20mm and 28mm to allow for an Ashlar recess from 2mm deep up to a maximum of 10mm. Ensure a minimum of 15mm thickness is maintained at the base of the recess for sheltered to moderate exposure and a minimum of 20mm for severe. Rule level and spatula flat. When the material is still green, scrape the surface as detailed in the guidance notes for scraped finish. Immediately after scraping, mark out and cut the Ashlar effect using Ashlar tools to produce the desired profile. Thoroughly brush down the surface of the render using a soft bristle brush.

weberpral M will set and gain hardness in a similar manner to conventional renders. Protection from unfavourable weather conditions should always be provided during application and early age curing.

Exposure

Note the base pass thickness should reflect the exposure severity; for sheltered and moderate exposure the minimum specified finished thickness is 15mm. For severe exposure, the minimum specified finished thickness is 20mm. Total thickness of render should not exceed 25mm.

Curing

Curing with a fine spray of clean water may be necessary during rapid drying conditions. In hot climates, curing as above is essential for 3 - 5 days after application.

Do not apply

- If frost is forecast within 24 hours of use
- In damp/wet conditions
- In temperatures below 5°C or above 30°C
- On elevations in direct sunlight or where the substrate is hot

Packaging & coverage

weberpral M is supplied in 25kg paper sacks.

When applied to achieve a finished thickness of 15mm, coverage is 1m² per 25kg bag.

NOTE: These estimates take no account of wastage and may vary according to the type of surface involved and method of application.

Storage and shelf life

When stored unopened in a dry place at temperatures above 5°C, shelf life is 12 months from date of manufacture printed on the side of the bag.

Health and safety

For further information, please request the Material Safety Data Sheet for these products.

Technical data

weberpral M has been designed for spray application and can be applied up to 28mm thick in two passes. Manual application is also possible.

weberpral M has excellent weather resistance and durability, whilst allowing the structure to breathe.

Substrates must have a good mechanical key suitable for rendering. **weberend aid** must be used to provide an artificial key on substrates such as smooth concrete.

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