



**centrica**



**YÜKSEL  
PROJE**

100 MW Reciprocating Power Plant Project

Profile Park Baldonnell

Dublin D22 C7W4

South Dublin County Council

Planning Ref: SD21A/0167

Condition 2 - Materials

Selected Façade Materials and Colour Scheme Option C

June 2023

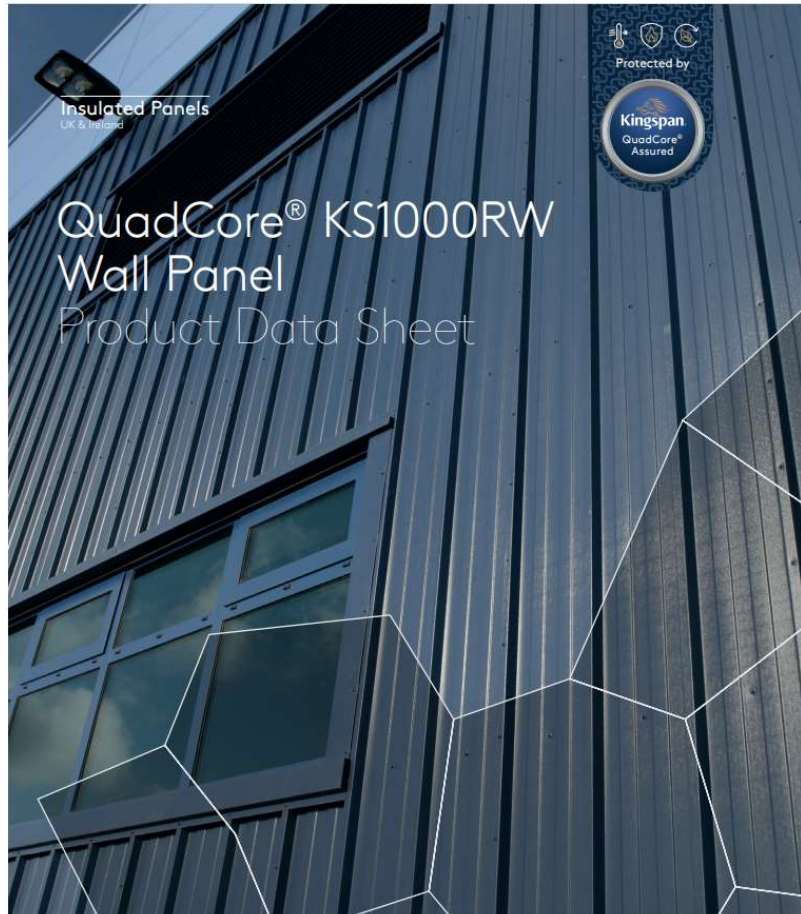
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# Building Façade Materials – Kingspan QuadCore KS1000RW Wall Panels Product Data



QuadCore® KS1000RW Wall Panel  
Product Data Sheet

## Product Data

### Applications

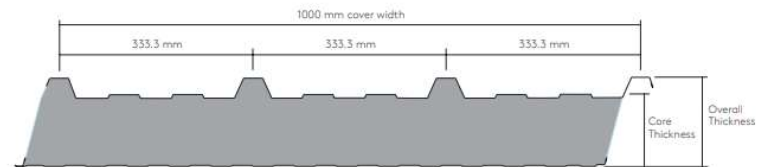
QuadCore® KS1000RW Wall Panels are through-fix, trapezoidal profiled, insulated wall panels which can be used in both horizontal and vertical orientation.



### Available Lengths

Standard Lengths (m)	1.8 - 14.5
Longer Lengths (non-standard) (m)	14.5 - 29.2
Shorter Lengths (non-standard) (m)	Below 1.8

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



## Dimensions, Weight & Thermal Performance

Core Thickness (mm)	40	53	60	73	80	91	100	115	120	137	150
Overall Thickness (mm)	71	84	91	104	111	122	131	146	151	165	181
U-Value (W/m <sup>2</sup> K)	0.47	0.35	0.31	0.25	0.23	0.20	0.18	0.16	0.15	0.13	0.12
Weight (kg/m <sup>2</sup> )	9.0	9.5	9.7	10.2	10.5	10.9	11.3	11.8	12.0	12.7	13.2

The QuadCore® insulation used in QuadCore® KS1000RW Wall Panels has a Thermal Conductivity (λ) of 0.018 W/m.K. QuadCore® KS1000RW Wall Panels have 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).

### THE COLORS OF EXTERIOR FAÇADE DESIGN ARE SHOWN BELOW:

-  **INSULATED WALL PANELS RAL 9002**  
(91mm core thickness, 122 mm overall thickness) (KINGSPAN KS1000 RW OR EQUIVALENT)
-  **INSULATED WALL PANELS RAL 7044**  
(91mm core thickness, 122 mm overall thickness) (KINGSPAN KS1000 RW OR EQUIVALENT)
-  **INSULATED WALL PANELS RAL 6027**  
(91mm core thickness, 122 mm overall thickness) (KINGSPAN KS1000 RW OR EQUIVALENT)
-  **INSULATED WALL PANELS RAL 5012**  
(91mm core thickness, 122 mm overall thickness) (KINGSPAN KS1000 RW OR EQUIVALENT)
-  **INSULATED WALL PANELS RAL 5015**  
(91mm core thickness, 122 mm overall thickness) (KINGSPAN KS1000 RW OR EQUIVALENT)

# Building Façade Materials – Kingspan QuadCore KS1000RW Wall - Declaration of Performance



## Declaration of Performance

- Unique identification code of the product type:** QuadCore KS1000RW Roof and Wall Panel 0724
- Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer:** Insulated sandwich panels for walls and roofs according to EN14509:2013
- Type, batch or serial number or any other element allowing identification of the construction product as required pursuant to Article:** See product label and marking on panel
- Name registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5):** Kingspan Limited, Greenfield Business Park No 2, Holywell, Flintshire, CH8 7GJ, UK
- Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2):** Not relevant
- Systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:** System 1 (CoC No: 1812-CPR-2085)
- Notified bodies:** EFECTIS, France(No.1812) WFRGENT N.V., Belgium (No. 1173)
- In case of the declaration of performance concerning a construction product covered by a harmonised standard:** EN 14509:2013
- The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 10**

This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of Kingspan Ltd. Signed on behalf of Kingspan Insulated Panels by:

**Name:** Phil Smith  
**Position:** Managing Director  
**Place and date:** Holywell, 15/07/2024



24 EN 14509:2013 AVCP1

### 10 Declared performance for QuadCore KS1000RW Roof and Wall Panel 0724

Thickness in mm	40	53	60	73	80	91	100	115	120	137	150	167	Technical Specification
Thermal transmittance (W/m <sup>2</sup> K)	0.46	0.35	0.30	0.25	0.23	0.20	0.18	0.16	0.15	0.13	0.12	0.11	EN 14509:2013
Mass (kg/m <sup>2</sup> )	8.6	9.1	9.3	9.8	10.1	10.5	10.8	11.4	11.6	12.2	12.7	13.4	
Mass (kg/m <sup>2</sup> ) (stainless liner)	10.1	10.6	10.8	11.3	11.6	12.0	12.3	12.9	13.1	13.7	14.2	14.9	
<b>Wrinkling Strength (MPa)</b>													
External span	280	280	280	280	278	273	269	261	259	250	244	236	EN 14509:2013
External span (high temp)	280	280	280	280	278	273	269	261	259	250	244	236	
External central support	280	280	280	280	280	280	280	280	280	280	280	280	
External central support (high temp)	280	280	280	280	280	280	280	280	280	280	280	280	
<b>S220GD Ribbed Liner</b>													
Internal span (S220 Liner)	163	163	163	163	163	161	158	155	154	150	147	143	EN 14509:2013
Internal central support (S220 Liner)	106	106	105	105	104	109	113	120	122	130	136	136	
<b>Stainless Steel Liner</b>													
Internal span	55	57	58	60	61	61	62	63	63	64	65	65	EN 14509:2013
Internal central support	36	37	37	38	39	42	45	50	52	58	62	60	
<b>S220GD Flat Liner (S220mm)</b>													
Internal span	56	58	59	60	62	62	63	64	64	65	66	66	EN 14509:2013
Internal central support	36	37	38	39	39	43	46	51	53	59	63	63	
<b>Fire resistance</b>													
Reaction to fire (internal face)	NPD												EN 13501-2
External Fire Performance (roof)	R <sub>1000(F)</sub> (S2) CW1 & R <sub>1000(F)</sub>												EN 13501-1 (NB: 1812)
<b>Material properties - All thicknesses</b>													
External steel gauge	0.42mm												EN 10346
Internal steel gauge (S220)	0.32mm												EN ISO 9445
Internal steel gauge (stainless liner)	0.50mm												EN ISO 9445
External steel grade	S280GD												EN 10346
Internal steel grade (S220)	S220GD												EN 10346
Internal steel grade (stainless liner)	304 (1.4301) or 316 (1.4401)												EN 10088-1
External coatings	Kingspan XL Forté, Kingspan Spectrum, Granite HD Kingspan Altaris, Kingspan Destrail, Polyester Kingspan CLEANsafe 15, Kingspan CLEANsafe 25												EN 10169
Internal coating (S220 Liner)	Kingspan CLEANsafe 55, Kingspan CLEANsafe 120 Kingspan AQUAsafe 55, Colorfarm 20												EN 14509:2013
Density (Kg/m <sup>3</sup> )	38												EN 14509:2013



Thermal conductivity (W/mK)	0.018	EN 14509:2013
Tensile strength (MPa)	≥0.06	
Compressive strength (MPa)	≥0.115	
Shear strength (MPa)	≥0.085	
Shear modulus (MPa)	≥2.80	
Long term shear strength (Mpa)	≥0.034	EN 14509:2013
Creep coefficient t = 2000hrs	1.64 (roof application)	
Creep coefficient t = 10000hrs	2.33 (roof application)	
Water permeability	Class A (roof application)	
Air permeability (m <sup>3</sup> /h/m <sup>2</sup> @ 50pa)	<5	
Water vapour permeability	Impermeable	

\* Fire classifications are subject to method of assembly, installation and steel coating. Please consult Kingspan Technical Department for details.

\*\* Thicker steel gauges are available on request.

\*\*\* Flat liner only available in 0.350mm Gauge.

\*\*\*\* This DcP is also applicable for the Liner Embodied Carbon version of the product, QuadCore KS1000RW LEC. The lower embodied carbon versus the standard product is based on a comparison of equivalent EPDs, or validation of assumptions by a third party expert instances where EPDs are not yet available.

Colours And Patterns

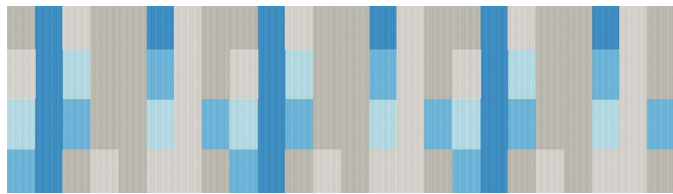
Engine Hall Wall Cladding

OPTION C

COLOURS:



PATTERN:



Electrical Annex Building Wall Cladding

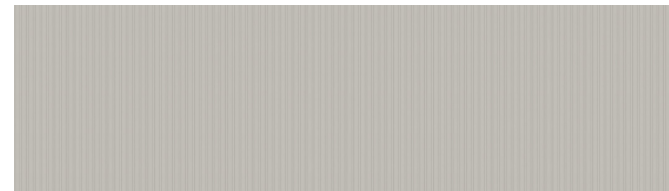
COLOUR:



LOGO:



PATTERN:

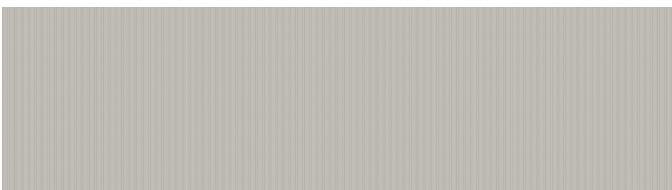


Other Buildings Cladding

Colour:

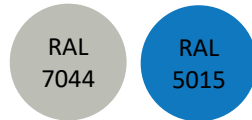


PATTERN:



Stacks And Tanks

Colours:



PATTERN:

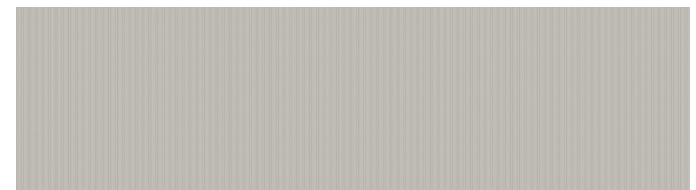


Engine Hall Interior

Colour:



PATTERN:



IMAGES / OPTION-C



IMAGES / OPTION-C



IMAGES / OPTION-C





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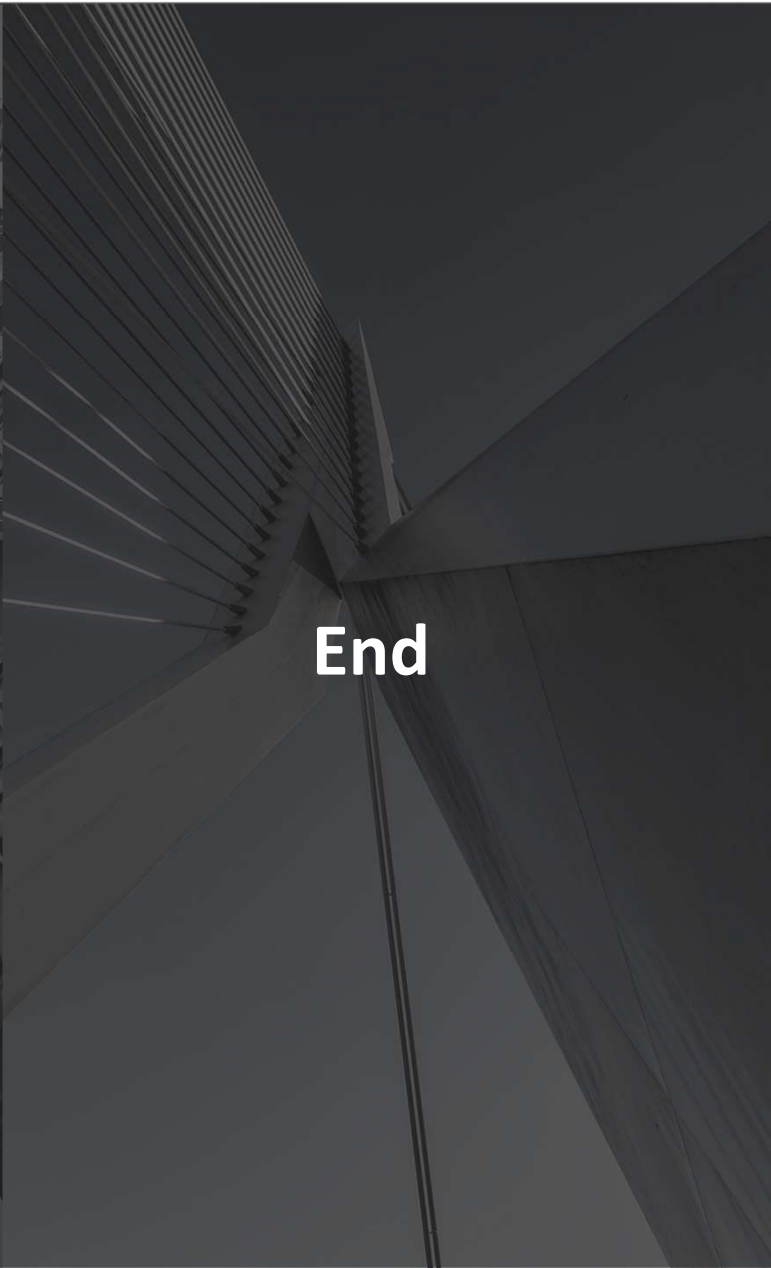
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