

Insulated Panels

Middle East, Africa, Turkey
& Central Asia

Protected by



QuadCore™ KSD1000RW Roof Panel Product Data Sheet



POWERED BY
QuadCore™
TECHNOLOGY

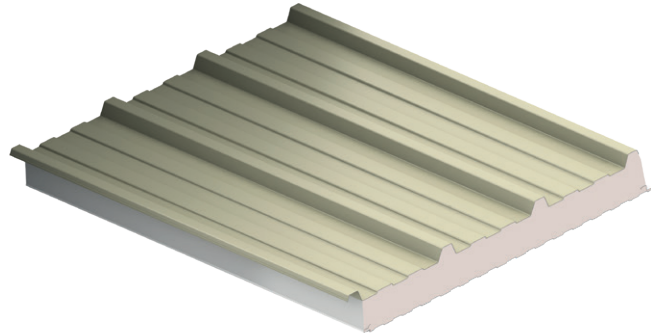


Product Data

Product Description

The QuadCore™ KSD1000RW Roof Panel is a through-fix panel featuring a trapezoidal profile, available in a width of 1000 mm.

This panel is powered by Kingspan's Quadcore Insulation Core.



Applications

The panel is suitable for building applications with roof pitches of 4° or more after steel deflection.

Available Lengths

Standard Lengths: 3.0 m to 13.0 m.

Please contact Kingspan Tech-eXchange for non-standard lengths and transport restrictions.

Cover Width

1000 mm.

Panel Joints

Through-fixed.

Dimensions, Weight & Thermal Performance

Core Thickness (mm)	40	50	60	70	80	100	120
Overall Thickness (mm)	75	85	95	105	115	135	155
U-Value (W/m ² K)	0.43	0.35	0.29	0.25	0.22	0.18	0.15
R-Value (m ² K/W)	2.32	2.86	3.43	4.00	4.50	5.50	6.66
Weight (kg/m ²) 0.5 steel / 0.4 steel	9.90	10.03	10.70	11.20	11.50	12.30	12.70

The QuadCore insulation utilized in the QuadCore™ KSD1000RW Roof Panel, as depicted in the table, has a Thermal Conductivity (λ) of 0.018 W/m.K at 10°C for an aged product.

Please contact Kingspan Tech-eXchange for the U-Values at other temperature ranges.

Insulation Core

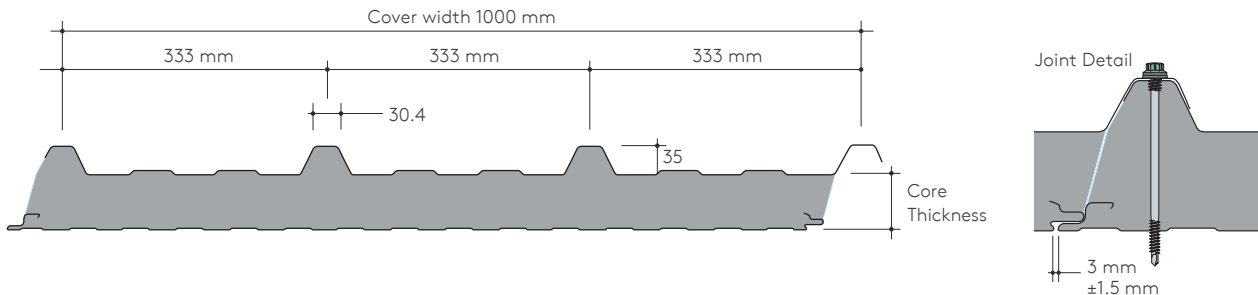
QuadCore™ hybrid insulation core having a thermal conductivity value of $\lambda = 0.018$ W/m.K at 10°C.

The core insulation of QuadCore™ hybrid is free from HCFCs, CFCs, and HFCs, achieving a thermal conductivity value of $\lambda = 0.018$ W/m.K at 10°C.

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Profile

Trapezoidal 35 mm height.



Panel End Cut Back

Standard Cut Back Eaves: 25 mm up to 200 mm.
Please contact Kingspan Tech-eXchange for a clean / flush end.

Materials

Metal Type
Steel or aluminium.

Metal Thickness Range
External Facing (Top Skin)
Steel: 0.40 mm to 0.70 mm thickness.
Aluminium: 0.50 mm to 1.00 mm thickness.

Interior Facing (Bottom Skin)
Steel: 0.40 mm to 0.70 mm thickness.
Aluminium: 0.50 mm to 0.70 mm thickness.

Notes: The given metal thickness ranges include coating.
For Galvanized Steel Thickness: Tolerances to be in accordance with EN 10143 or ASTM A 924 / A924M-13, applicable for an external weather sheet and internal liner.
For Aluminum Thickness: Tolerances to be in accordance with BS EN 485 / BS EN 508 or ASTM B209M, applicable for an external weather sheet and internal liner.

Substrate
Metallic and Non-metallic protected steel as per EN 10346: 2015 and/or ASTM A653M & ASTM A755M standards.

Note: Standard colour is light non-metallic.
Please contact Kingspan Tech-eXchange for information on other substrates.

Coatings – External Weather Sheet and Internal Liner Sheet

- Polyester.
- PVDF.

Please consult Kingspan Tech-eXchange for guidance in selection of the correct coating for your specific geographic location.

Colours

A large selection of external colours options are available with a wide variety of finishes including metallic, matte and solid.
Please consult Kingspan Tech-eXchange for guidance of colour choices for your project.

Certification and Testing

Dubai Municipality Approval

The QuadCore™ KSD1000RW Roof Panel adheres to the BS EN 13165: 2012 + A2: 2016 standard when tested at 35°C and 60% RH, as verified by the Dubai Central Laboratory (DCL).



This certification extends to a range of product specifications:

- 1 Panel maximum length: 17 m.
- 2 Panel thickness: 40 mm to 120 mm.
- 3 Panel width: 1000 mm.
- 4 Panel exterior and interior sheet facing: steel or aluminium sheet facing on both sides.

Note: The panel standard length is from 3.0 m to 13.0 m.

Please contact Kingspan Tech-eXchange for the latest DCL certificate.

Insurer Approvals

The QuadCore™ KSD1000RW Roof Panel, featuring galvanized steel, has undergone thorough testing and obtained approvals within the following categories:

- FM 4471 approval standard for Class 1 for Internal Fire and Class A for External Fire roof panel for core 80 – 100 mm, under a certified name KSD1000 RW.

Note: Insurer approvals are subject to panel thickness, cover width, facer ranges and material, securement, maximum support steel spacing, minimum support steel thickness, minimum support steel yield stress, method of assembly, steel coating and manufacturing facility.

Please contact Kingspan Tech-eXchange for further information on the FM approval.



Product Data

Environmental & Sustainability Credentials

Life Cycle Assessment study (LCA) and Environmental Product Declaration Certificate (EPD) for the QuadCore™ KSD1000RW Roof Panel are currently undergoing development.

Kingspan maintains its dedication to environmental sustainability, with a commitment to being free from CFC, HCFC, HFC, and Halogenated Fire Retardants. The company is certified for the Environmental Management System ISO 14001.

Please contact Kingspan Tech-eXchange for the latest certificates.

Acoustic

QuadCore™ KSD1000RW Roof Panel has an average predicted weighted sound reduction index $R_w = 26\text{dB}$ based on a desktop study.

Air Infiltration & Water Penetration

A project specific test can be done for:

- ASTM E 283-04 (Air Infiltration).
- ASTM E 331-00 (Static Water Penetration).
- ASTM E 330-02, METHOD A (Structural Load).
- AAMA 501.1-05, Water Penetration (Dynamic Testing).

A sample test result passing the above requirements is available, if required. Please contact Kingspan Tech-eXchange for the same tests for your project specific panels.

Product Tolerances

Cut to Length	± 5 mm
Cover Width	± 2 mm
Thickness (Core ≤ 100mm)	± 2 mm
Thickness (Core > 100mm)	± 2%
Deviation from Squareness	≤ 0.6% of the nominal cover

All Kingspan panels tolerances are in compliance with EN 14509.

Seals

Site applied.

Handing

The panel can be manufactured in both left-to-right (LH) and right-to-left (RH) orientations to accommodate diverse installation needs.

Quality & Durability

Manufactured with meticulous attention to detail, the QuadCore™ KSD1000RW Roof Panel is produced using premium-grade materials in advanced production facilities.

It adheres to stringent quality control measures that align with the ISO 9001 standard.

To obtain the most up-to-date certificate, please contact Kingspan Tech-eXchange.

Warranty

Kingspan offers product coating warranties tailored to each specific project, taking into account the environmental conditions of the project's geographical location.

These warranties are subject to strict adherence to a planned maintenance regimen.

For further information, please contact Kingspan Tech-eXchange.

Health & Safety

Kingspan insulated panels manufacturing in Dubai is in compliance with Occupational Health and Safety Certification ISO 45001: 2018.

Please contact Kingspan Tech-eXchange for detailed safety instructions and comprehensive information on the safe use of our products.

Packing

The panels are stacked horizontally, with the facing sheets positioned upwards to minimize the pack's overall height. The upper and lateral sides are protected using either cardboard or polystyrene, along with spiral wrap stretch polyfilm.

Customers must promptly remove the protective film and other delivery packaging right after installation, making sure it's done within a maximum of two months from the production date.

The number of panels in a pack will vary depending on the thickness, as detailed below:

Trailer Loading

Panel Thickness (mm)	Bundle (pcs)	Total of Panels in Trailer (pcs)	Weight (kg/m ²)
40	20	80	9.90
50	16	64	10.30
60	15	60	10.70
70	13	52	11.20
80	12	48	11.50
100	10	40	12.30
120	8	32	12.70

Container Loading

Panel Thickness (mm)	Bundle (pcs)	Total of Panels in Container (pcs)	Weight (kg/m ²)
40	18	72	9.90
50	15	60	10.30
60	13	52	10.70
70	12	48	11.20
80	11	44	11.50
100	8	32	12.30
120	7+8	30	12.70

Transport

Delivery

All deliveries (unless indicated otherwise) are by road transport to project site.

Sea Freight

Timber wooden pallets are available on projects requiring delivery by sea freight shipping via containers at additional cost.

Site Installation Procedure

To obtain site assembly instructions and construction specifics, please contact Kingspan Tech-eXchange.

Unloading at Site

The responsibility for unloading goods lies with the recipient on-site. It is crucial to avoid dropping or tossing goods off the vehicle and refrain from stacking them on uneven surfaces.

During the unloading process, it is of utmost importance to exercise careful attention in order to protect the goods from any potential damage and to prioritize the safety of on-site personnel.

Manual unloading of goods is not the recommended approach. Instead, it is advisable to utilise specialised equipment such as a forklift or crane equipped with a spreader beam. This precautionary measure prevents applying excessive pressure on the goods, which could lead to issues such as delamination, damage to joints, and surface irregularities.

Please contact Kingspan Tech-eXchange to acquire the guidelines provided by Kingspan for the storage, on-site handling, and safe offloading of metal coils, building sheets, and insulated panels..

Site Storage

Ensuring proper storage conditions for the goods is crucial for maintaining their quality. It is mandatory to store the goods in a covered space on a clean, level surface, with stacking not exceeding two bundles to prevent any undue pressure.

While storing the goods in an uncovered area is not recommended, if circumstances necessitate outdoor storage, they can be placed on a gently sloping surface to mitigate the risk of water accumulation.

When storing goods outdoors, it is imperative to employ a waterproof covering that allows sufficient air circulation beneath it. Additionally, it's vital to keep the goods at a safe distance from potential fire hazards and the risk of falling objects. These measures are essential to ensure the goods' integrity and safety throughout their storage duration.

Please contact Kingspan Tech-eXchange to acquire the guidelines provided by Kingspan for the storage, on-site handling, and safe offloading of metal coils, building sheets, and insulated panels..

Handling

It is highly recommended to use mechanical handling equipment rather than manual handling to ensure safety and prevent damages to the panels during unloading and panel movements.

The recipient of the goods on site are requested to carefully inspect the panel stacks prior to unloading. Visible damages on the panels caused before handling and unloading shall be immediately reported to the Kingspan QA/QC team for investigation. At this stage, the panels should not be moved or unloaded from anywhere until Kingspan investigation of the reported damages is completed.

Contact Details

Manufacturing Facilities in the MEATCA Region

United Arab Emirates

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For a list of contacts and locations for Kingspan Businesses in MEATCA,
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