

Insulated Panels
CEME Division

KS X-Dek™ XM QuadCore® Roof Panel Product Data Sheet



POWERED BY
QuadCore
TECHNOLOGY

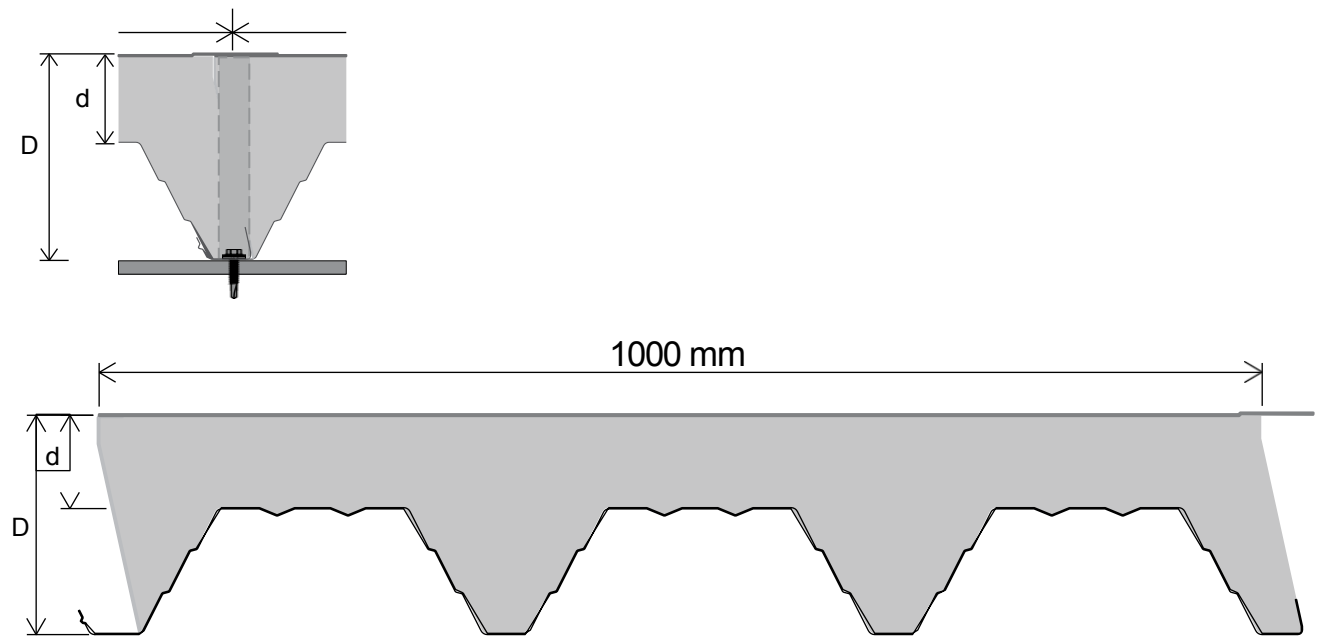


Application

KS X-Dek™ XM QuadCore® roof tile with visible fixing can be installed on all types of buildings with a roof pitch greater than 1%. It is particularly suitable for covering flat roofs and where very good thermal insulation is required. This board variant is available with an outer layer of waterproof PVC membrane and an inner lining of 0.90 mm or 1.10 mm galvanised steel sheet. The KS X-Dek™ XM QuadCore® board can also be used as a substrate for so-called "green roofs".

Each application should be reviewed for individual project requirements.

Slab cross-section



Technical specifications

KS X-Dek™ XM QuadCore® roof panel has been tested and conforms to individual technical specifications.

Modular width [mm]	Core thickness [mm]	Weight [kg/m²]	U-value according to EN 14509:2013 [W/m²·K]	Acoustic insulation (C; Ctr) [dB]	Global Warming Potential (GWP) for modules A1-A3 [kg CO2-eq./m²]	Global Warming Potential (GWP) for modules A-C [kg CO2-eq./m²]
1 000 / 1 000	100	15,82	0,20	24 (-2; -3) dB	28,4	34,6
	140	17,34	0,14	24 (-2; -3) dB	34	42,5

The specifications apply to cladding thicknesses of 1.20 (PVC membrane) / 0.90 mm (steel sheet) for exterior / interior.

Fire protection properties

KS X-Dek™ XM QuadCore® roof board has been tested and approved as compliant with EN 13501-5:2016 for roofing exposed to external fire and is classified as Broof(t1), Broof(t3).

Technical product specifications for their fire classification are available from the Kingspan Technical Department.

Specifications for FM-approved products are available on the [FM Approval Guide](#) website and from Kingspan's Technical Department.

Modular width [mm]	Core thickness [mm]	Reaction to fire	Fire resistance - Roof
1 000 / 1 000	100	B-s2, d0	• RE 20 ¹ / REI 20 ¹
	140	B-s2, d0	• RE 20 ¹ / REI 20 ¹

¹ For details, refer to the relevant classification reports and/or technical documentation available on request. r Class is not defined in EN 13501-2 for this application, but the product meets its criteria.

Dimensions

Plate length

Additional costs and transport restrictions may apply for non-standard panel lengths.

Width

The standard modular width of the board is 1,000 mm.

Permissible dimensional deviations of the panel

Along the length of the slab	L≤3m, -	5 mm
Along the length of the slab	L≤3m+	5 mm
Along the length of the slab	L>3m, -	10 mm
Along the length of the slab	L>3m+	10 mm
Over the width of the plate	-	2 mm
Over the width of the plate	+	2 mm
On the thickness of the plate	-	2 mm
On the thickness of the plate	+	2 mm
On the thickness of the plate	D>100mm, -	2 %
On the thickness of the plate	D>100mm+	2 %
Perpendicularity of slab cut		0.006 x w
Deviation from straightness (along the length)		NPD

Materials

Insulating core

QuadCore® insulation core with thermal conductivity (λ) of 0.022 W/m-K

External cladding

Waterproof PVC membrane in light grey with a standard thickness of 1.2 mm or 1.5 mm for FM-certified products.

Interior cladding

The standard thickness of galvanised steel sheet is 0.90 mm and 1.10 mm. Coatings available: PEI15, PES25.

Gaskets

Factory-applied panel side lock seals. The side locks have a factory-applied polyethylene gasket to seal the joint between the panels.

Profiling

For information on board profiling options, see the 'Profiling' table on the following pages of this document.

Colours

Please refer to the brochure "Standard colours" for information on available colours.

Mechanical strength

Load tables can be found in the "Load tables" brochure or by contacting the Kingspan Technical Department.

Environmental characteristics

Kingspan sandwich panels are manufactured in a plant

production in Leipzig, which generates renewable energy on site, helping to improve the plant's energy balance. For the production of sandwich panels, Kingspan sources steel made from 15-25% recycled materials. The use of Kingspan sandwich panels directly contributes to more points in building certification according to BREEAM® and LEED®.

KS X-Dek™ XM QuadCore® roof panel has an Environmental Product Declaration in accordance with the requirements of EN 15804:2012+A2:2019/AC:2021.

Quality

Kingspan sandwich panels are manufactured from the highest quality materials, using state-of-the-art production technology, in a production facility that meets the standards of EN ISO 9001:2015 quality management, EN ISO 50001:2018 energy management, EN ISO 14001:2015 environmental management and EN ISO 45001:2018 occupational health and safety systems.

KS X-Dek™ XM QuadCore® roof panel has received a national technical assessment.

Packaging

Packaging - road transport

Kingspan composite panels are placed in bundles on non-load-bearing polystyrene feet during the packing process. Each board pack is tightly wrapped with foil to protect it.

The number of plates in a bundle depends on the thickness and length of the plate. Quantities are reduced for exceptionally long plates.

Core thickness [mm]	100	140
Number of discs	7	6

Delivery

All deliveries are made by road transport to the construction site, unless otherwise indicated. Unloading is the responsibility of the customer.

Maritime freight forwarding

For projects requiring delivery by sea, full wooden crate packaging. Alternatively, steel containers can be used. Special loading charges apply.

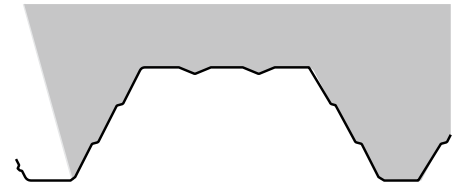
Storage and assembly

For instructions on how to store and install the panels, refer to the relevant brochure or contact Kingspan Technical Services.

Guarantee

Kingspan provides a warranty and guarantee for each project on individual terms and conditions, for the sandwich panel and for the protective outer coating.

Profiling

Plate profiles	External	Internal
F - Flat		
V - Trapeze Profiling X-Dek		

Contact details

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For applications not expressly described in this document, it is recommended that you consult our Technical Department to ensure that the product meets the specified requirements.
Users are responsible for verifying the suitability of the product for their specific needs and for ensuring compliance with all applicable laws and regulations.
For the most up-to-date and comprehensive product information, please refer to the latest version of this document by scanning the QR code above.
We reserve the right to update this document and any other information material as required and without notice.
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