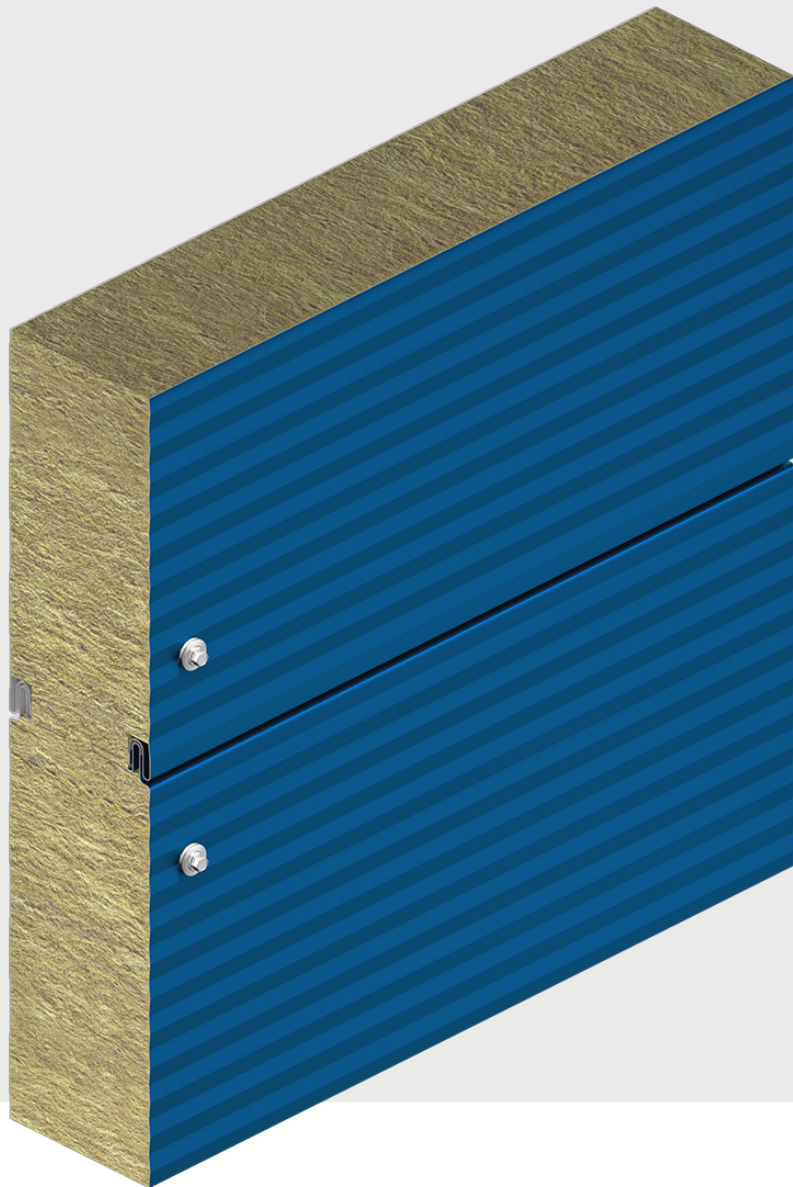


Insulated Panels
CEME Division

KS FR K-Roc[®] Wall Panel

Product Data Sheet



Application

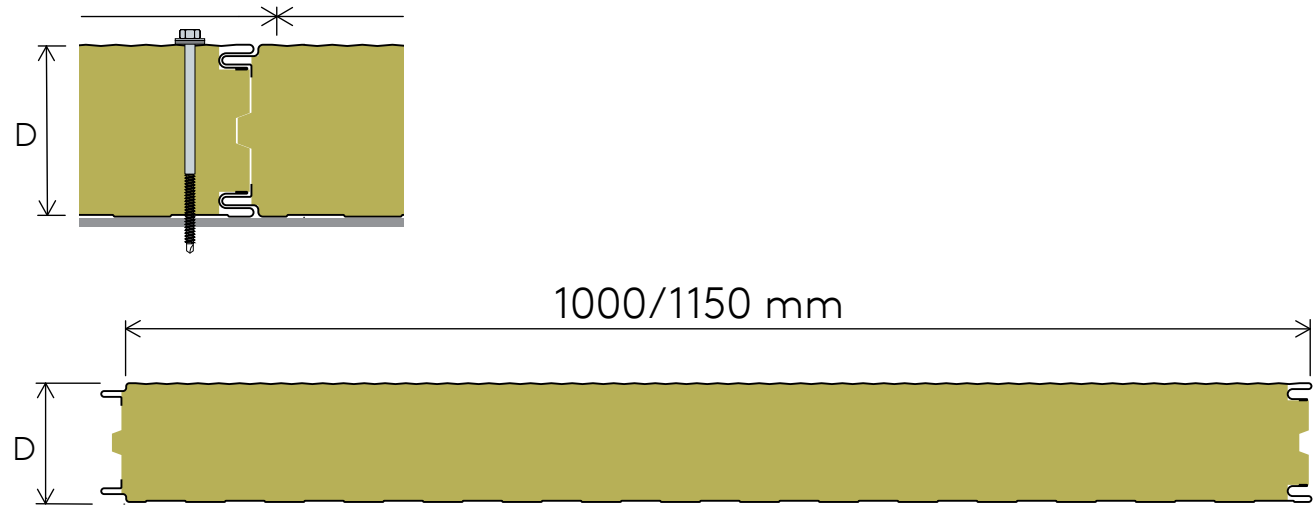
KS FR K-Roc® wall panel is a wall sandwich panel with K-Roc® mineral wool insulation core, supplied from the production plant in Hradec Kralove, Kingspan Czech Republic.

Method of fixing to the structure: anchoring elements (screws with sealing washer). Application: horizontal or vertical.

KS FR K-Roc® wall panel is suitable for external or internal walls of all buildings with a design internal temperature greater than 5 °C. It is also acceptable to use these panels in ceilings or soffits.

The suitability and applicability of the panel must be assessed individually in relation to the specific project conditions.

Panel Cross Section



Technical Parameters

Kingspan insulated panels have been tested and approved to comply with EN 14509:2013.

Module width / Cover width [mm]	Core Thickness [mm]	Mass [kg/m²]	Thermal Transmittance (U-value) acc. EN 14509:2013 [W/m².K]	Airborne Sound Insulation R_w (C;C _{tr})	Weighted Sound Absorption Coefficient [α_w]
1,000/1,000	60	16.57	0.68	31 (-1; -3) dB	NPD
	80	18.97	0.52	31 (-1; -3) dB	NPD
	100	20.38	0.41	32 (-1; -3) dB	NPD
	120	22.58	0.35	32 (-1; -3) dB	NPD
	140	24.78	0.30	32 (-1; -3) dB	NPD
	150	25.88	0.28	32 (-0; -3) dB	NPD

The given values apply to a panel module width of 1000 mm and a thickness of EX/IN surface sheets of 0.60/0.50 mm. For other cases, individual values may be different. Please contact your Kingspan representative for more information.

NPD - value has not been defined

Fire Performance

KS FR K-Roc® Wall Panel has been tested and approved to comply with EN 14509:2013.

Fire resistance classifications are given in accordance with EN 13501-2:2023. The table only shows the maximum fire resistance values according to EN 1364-1:2015 for external and internal walls and EN 1364-2:2018 for ceilings.

Contact your Kingspan representative for results according to the extended application of fire tests for larger spans to EN 15254-5:2018

for exterior and interior walls and to EN 15254-7:2018 for ceilings.

Please note: the values given for fire resistance and other characteristics are subject to change over time.

Module width/Cover width [mm]	Core Thickness [mm]	Reaction to Fire	Fire Resistance - Ceiling	Fire Resistance - External Wall - Horizontal	Fire Resistance - External Wall - Vertical	Fire Resistance - Internal Wall - Horizontal	Fire Resistance - Internal Wall - Vertical
1,000/1,000	60	A2-s1, d0	NPD	NPD	NPD	NPD	NPD
	80	A2-s1, d0	NPD	• EI 30 (o↔i) / EW 30 (o↔i) - 4m	• EI 20 (o↔i) / EW 20 (o↔i) - 4m	• EI 30 / EW 30 - 4m	• EI 30 / EW 30 - 4m
	100	A2-s1, d0	• EI 30 (a<-b) - 3m	• EI 60 (o↔i) / EW 60 (o↔i) - 4m	• EI 30 (o↔i) ; EI 45 (o↔i) ³ / EW 30 (o↔i) ; EW 45 (o↔i) ³ - 4m	• EI 60 / EW 60 - 4m	• EI 60 / EW 60 - 4m
	120	A2-s1, d0	• EI 30 (a<-b) - 3m	• EI 60 (o↔i) / EW 60 (o↔i) - 7.5m	• EI 60 (o↔i) / EW 60 (o↔i) - 6m	• EI 60 / EW 60 - 7.5m	• EI 60 / EW 60 - 7.5m
	140	A2-s1, d0	• EI 30 (a<-b) - 3m • EI 45 (a<-b) - 3m	• EI 60 (o↔i) / EW 60 (o↔i) - 7.5m	• EI 60 (o↔i) / EW 60 (o↔i) - 6m	• EI 60 / EW 60 - 7.5m	• EI 60 / EW 60 - 7.5m
	150	A2-s1, d0	• EI 30 (a<-b) - 3m • EI 45 (a<-b) - 3m	• EI 120 (o↔i) / EW 120 (o↔i) - 4m	• EI 90 (o↔i) / EW 90 (o↔i) - 4m	• EI 120 / EW 120 - 4m	• EI 120 / EW 120 - 4m

¹ See details in the relevant certification report and/or in technical documentation available on request.

³ Class is not defined in standard EN 13501-2 for this application, but the product meets its criteria.

NPD - value has not been defined

Dimensions

Length

Shorter lengths (non-standard) [mm]	270-1850
Standard lengths [mm]	1850-10000
Longer lengths (non-standard) [mm]	10001-14200

The values in the table are valid for thicknesses of 80-150 mm.

Thickness 60 mm is produced in lengths of 1850-7000 mm.

Minimum and maximum non-standard lengths apply for all thicknesses according to the values in the table.

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

Width

The standard module width is 1,000 mm , 1,100 mm and 1,150 mm .

Product Tolerances

Product tolerances are measured according to the standard EN 14509:2013, , Annex D.

Length tolerance	L≤3m, -	5 mm
Length tolerance	L≤3m, +	5 mm
Length tolerance	L>3m, -	10 mm
Length tolerance	L>3m, +	10 mm
Cover width tolerance	-	2 mm
Cover width tolerance	+	2 mm
Thickness tolerance	-	2 mm
Thickness tolerance	+	2 mm
Thickness tolerance	D>100mm, -	2 %
Thickness tolerance	D>100mm, +	2 %
Deviation from squareness		0.006 x w
Deviation from straightness (on length)		1mm/m, maximum 5 mm/m

Materials

Insulation Core

K-Roc® mineral wool insulation core with a Thermal Conductivity (λ) of 0.044 W/m·K for thicknesses of 60 and 80 mm, with a Thermal Conductivity (λ) of 0.043 W/m·K for thicknesses of 100-150 mm according to EN 14509:2013, EN 13162:2012+A1:2015.

External facing

The standard thicknesses of the coil coated steel sheet are 0.6 mm.

On request also other steel sheet thicknesses are available.

Standard coating: Polyester SP25 (Kingspan PES 25).

Internal facing

The standard thicknesses of the coil coated steel sheet are 0.5 mm. On request also other steel sheet thicknesses are available.

Standard coating: Polyester SP25 (Kingspan PES 25).

Seals

KS FR K-Roc® Wall Panel is designed for direct installation. For normal use and installation, it is supplied from the factory in the final longitudinal joint design, without the need for the addition of seals and tapes on site. For non-standard applications or specific requirements, please contact Kingspan Support.

Profiles

The available profiles can be found in the corresponding profile table.

Colours

The available colours can be found in the "Colour shades and surface treatments" brochure.

Mechanical Resistance

Load capacity/span tables can be found in the booklet "Kingspan Technical Manual - Load span tables" or contact

Kingspan Support.

Environmental Performance

Facilities located in Hradec Kralove generate renewable electrical energy onsite(PV) which contributes to that sites energy mix.

Kingspan Insulated Panels source steel with 13-23% recycled content.

Kingspan Insulated Panels directly contribute to BREEAM® and LEED® credits.

Production Standard

Kingspan Insulated Panels apply to the European Standard EN 14509:2013 Self-supporting double skin metal faced insulating panels.

Quality

Kingspan Insulated Panels are manufactured from the highest quality materials using state of the art production equipment to rigorous quality control standards, complying with ISO 9001:2015 Quality management systems standards, ensuring long term reliability and durability.

The panels are also manufactured under Environmental management system certification EN ISO 14001:2015 and Occupational health and safety certification EN ISO 45001:2018.

KS FR K-Roc® Wall Panel is CE marked to EN 14509:2013.

Packing

Standard Packing - Road Transportation

Unless otherwise stated, all Kingspan insulation panels are

supplied in packs, folded interior side down, the last three panels, top side up (not applicable to incomplete packs). The top and bottom walls of the packs are protected by polystyrene or honeycomb board. The sides are then protected by polystyrene or honeycomb strips. The whole bales are covered on the underside with polystyrene blocks or a wooden pallet and wrapped in protective foil.

Core Thickness [mm]	60	80	100	120	140	150
Number of Panels	18/16	13/11	11/10	9	7	7

Delivery

All deliveries are by road transport to a project site unless otherwise indicated. Unloading is the responsibility of the customer.

Sea Freight

Full timber crate packs are available at extra cost for projects requiring sea freight delivery. Alternatively steel containers can be used. Special loading charges apply.

Site Storage & Installation

For site storage and installation instructions please refer to the respective brochure "Kingspan Technical Manual - Handling and Installation" or contact Kingspan.

Warranty

Kingspan warranties are assessed individually for each project, depending in particular on the aggressiveness of the environment and the type of surface treatment chosen.

Profiles

Profile	External	Internal
B - Box		
F - Flat		
M - Micro		
Q - Minibox		

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