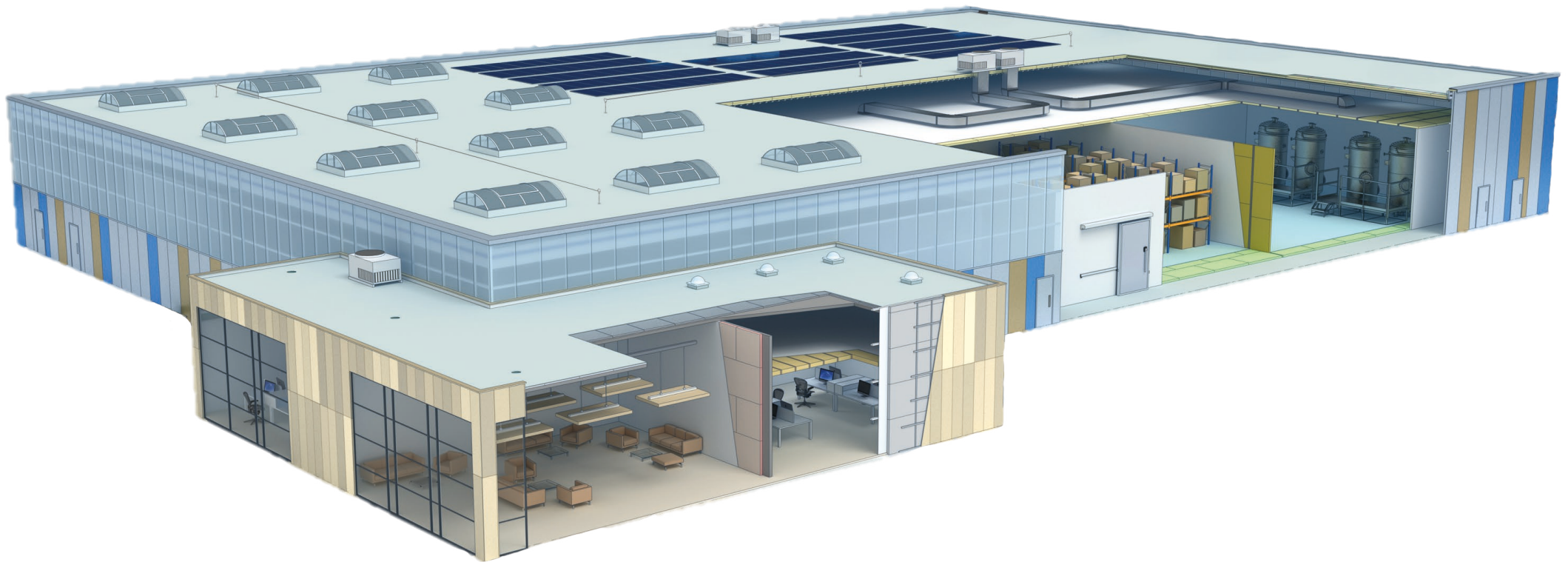


Insulated wall and roof panels

CEME Division

Product selector

Flat roofs



2026/02

Built to Perform. Designed to Impress.

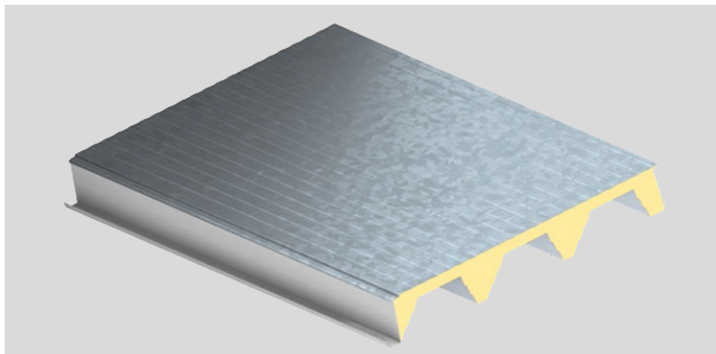
Across a wide range of projects, Kingspan flat roof panels have proven their strength, efficiency, and design versatility. From industrial halls to modern commercial buildings, they deliver exceptional thermal performance, watertight reliability, and a sleek architectural look—helping create spaces that are built to last and designed to impress.



Why flat roofs?

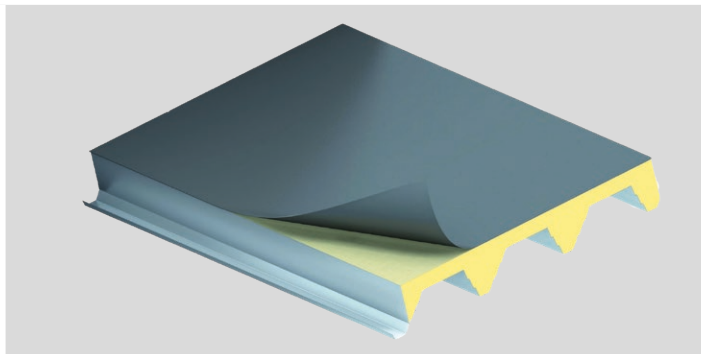
A flat roof offers clear structural and operational advantages for sandwich panel buildings. It streamlines load distribution, supports efficient installation of mechanical and photovoltaic systems, and enables precise control of thermal performance. The straightforward geometry reduces detailing complexity, improves airtightness, and lowers long term maintenance needs.

KS X-Dek™ XD Roof Panel



The KS X-Dek™ XD Roof Panel combines a support structure, high-quality thermal insulation core, and external metal cladding in a single product. Its design allows for a variety of optional retrofit waterproofing and fastening methods.

KS X-Dek™ XM Roof Panel



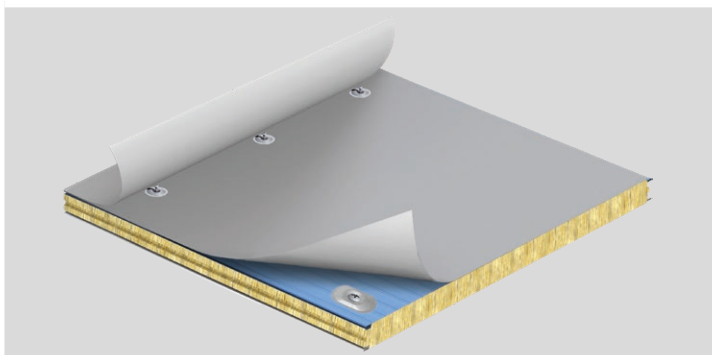
The KS X-Dek™ XM flat roof sandwich panel system combines load-bearing trapezoidal sheet metal, high-quality thermal insulation core, and an external waterproof PVC waterproofing surface integrated during manufacture in a single product.

KS X-Dek™ XG Roof Panel



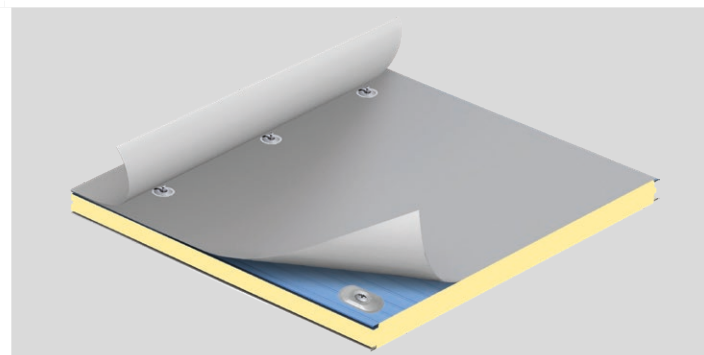
The KS X-dek™ XG panel variant is available with an external glass fiber cladding to be covered with a waterproof membrane on site, not factory-applied.

KS FP/RP K-Roc® roof panel



The main advantage of these panels is their high fire resistance, allowing them to be used in fire barriers and DP1 structures. The roof system is complete only with a waterproofing PVC foil applied on site, which is not part of the panel from the factory.

KS NR roof panel



It offers very good properties, especially in the area of thermal insulation. The advantage is the low overall height of the roof cladding. The roof system is complete only with a waterproofing PVC foil applied on site.

Why X-Dek™?

- Large span, thermally insulated sandwich panel roof systems for flat roofs
- Combines a load bearing element for long spans, a high quality insulation core, and durable outer metal cladding with a waterproofing membrane
- Panels can span up to 6 meters depending on structural and fire safety needs
- Faster installation than traditional assembled roofs
- Inner surface has a Grey white plastic coating that creates a clean, pleasant look

X-Dek™ product variants allow for the use of different types of waterproofing and fastening methods:

XM - This type of roof panel is a product equipped with a factory-fitted PVC waterproofing membrane. The available options are PVC. Thanks to the compact design of the product, installation time and costs can be significantly reduced. The necessary waterproofing is available almost immediately after installation, so installation is possible regardless of weather conditions.

XD - Thanks to its steel upper reinforcement, the product has increased load-bearing capacity from a structural point of view. It provides a sufficiently rigid and even surface for any waterproofing system installed on site, whether bonded or mechanically fastened.

XG - This panel variant is available with glass fibre layer on the outer side and galvanised steel sheet facing 0.9 mm or 1.1 mm on the inner side. Once installed, the KS X-Dek™ XG panel requires additional covering with a Bitumen, EPDM TPO PVC waterproof membrane.

Our other flat roof options:

FP/RP - The main advantage of these panels is their high fire resistance, allowing them to be used in fire zones and DP1 structures. The roof system is only complete with a PVC waterproofing membrane applied on site, which is not part of the panel from the factory and may not always be included in the delivery.

NR - It offers excellent properties, especially in terms of thermal insulation. One advantage is the low overall height of the roof cladding. The roof system is only complete with PVC waterproofing membrane applied on site, which is not included with the panel as standard.

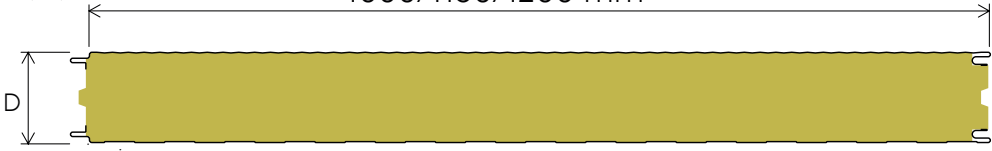
Flat roof panels with K-ROC® mineral fiber insulation | Poland

KS RP
Roof Panel

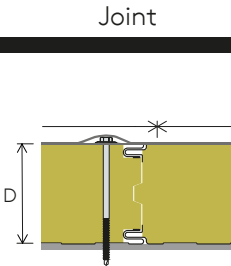
- K-ROC® mineral fiber insulation
- Not combustible
- Through fixed
- A2-s1, d0

*The technical data is valid for a module width of 1000 mm
Available in external profile: Q (minibox), M (micro), E (eurobox), B (box)

1000/1150/1200 mm



Available in internal profile: Q (minibox), B (box)



Application

Method of fixing to the structure: anchoring screws with plate washer through the thickness of the panel.

Core thickness d (mm)	Heat transfer coefficient U (W/m²K)		Sound reduction index Rw (dB)	Weight (kg/m²)
175	0,25	-	31	29,84
200	0,22	-	31	32,71
220	0,20	-	30	35,01
240*	0,19	-	30	37,31

*For module sizes of 1150mm or 1200mm, the U-value is 0.18 W/m²K

Flat roof panels with QuadCore® & IPN insulation core | Poland

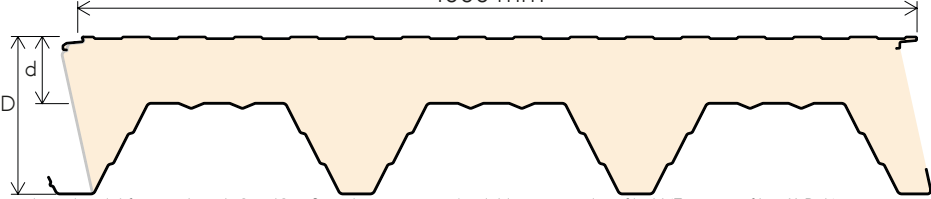
KS X-Dek™ XD
Roof Panel

- QuadCore® insulation core
- IPN insulation core
- Span up to 6 meters
- No secondary steel support structure is required



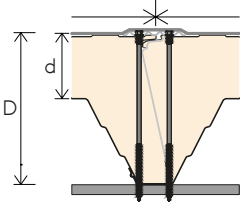
Available in external profile: D (Deep Minibox)

1000 mm



*The FM approval is only valid for panels with QuadCore® insulation

Available in internal profile: V (Trapez profiling X-Dek)



The design allows for a variety of optional retrofit waterproofing and fixing methods.

Core thickness d (mm)	Heat transfer coefficient U (W/m²K) IPN	Heat transfer coefficient U (W/m²K) QuadCore	Sound reduction index Rw (dB)	Weight (kg/m²) QuadCore
100	0,20	0,18	24	19,91
140	0,15	0,13	24	21,43

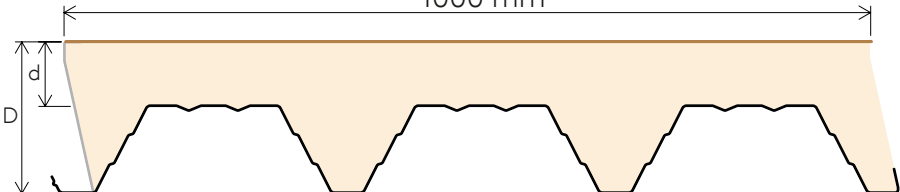
KS X-Dek™ XG
Roof Panel

- QuadCore® insulation core
- IPN insulation core
- Through fixed

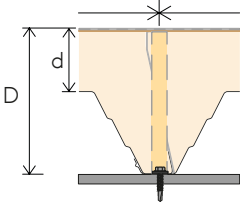


Available in external profile: F (flat)

1000 mm



Available in internal profile: V (Trapez profiling X-Dek)



It can also be used as a base for the construction of so-called "green roofs".

100	0,22	0,20	24	14,39
140	0,15	0,14	24	15,91

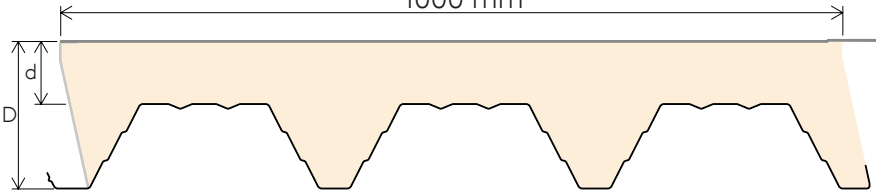
KS X-Dek™ XM
Roof Panel

- QuadCore® insulation core
- IPN insulation core
- Span up to 6 meters
- No secondary steel support structure is required
- B-s2, d0
- Factory applied PVC waterproof foil



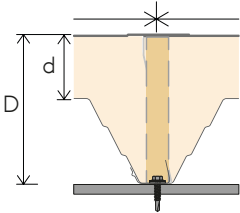
Available in external profile: F (flat)

1000 mm



*The FM approval is only valid for panels with QuadCore® insulation

Available in internal profile: V (Trapez profiling X-Dek)



The system is quicker to install than conventional prefabricated roofs, as there is no need for waterproofing.

100	0,22	0,20	24	15,82
140	0,15	0,14	24	17,34

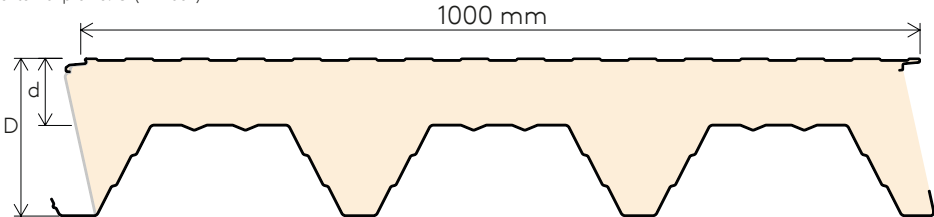
Flat roof panels with QuadCore® & IPN insulation core | Hungary

KS X-Dek™ XD
Roof Panel

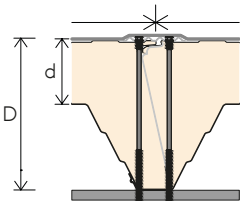
- QuadCore® insulation core
- IPN insulation core
- Span up to 8 meters
- No secondary steel support structure is required



Available in external profile: Q (Minibox)



Available in internal profile: V (Trapez profiling X-Dek)



Application

The design allows for a variety of optional retrofit waterproofing and fixing methods.

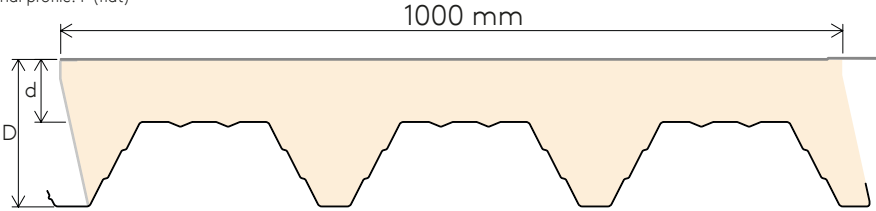
Core thickness d (mm)	Heat transfer coefficient U (W/m²K) IPN	Heat transfer coefficient U (W/m²K) QuadCore	Sound reduction index Rw (dB)	Weight (kg/m²)
80	0,24	-	N/A	18,91 IPN
100	0,20	0,18	N/A	19,91 QuadCore

KS X-Dek™ XM
Roof Panel

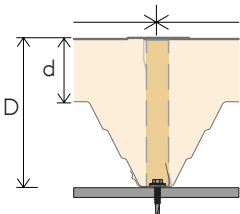
- QuadCore® insulation core
- IPN insulation core
- Span up to 6 meters
- No secondary steel support structure is required
- B-s2, d0
- Factory applied PVC waterproof foil



Available in external profile: F (flat)



Available in internal profile: V (Trapez profiling X-Dek)



The system is quicker to install than conventional prefabricated roofs, as there is no need for waterproofing.

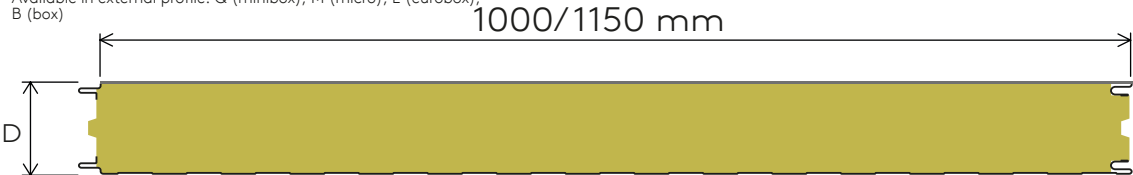
Core thickness d (mm)	Heat transfer coefficient U (W/m²K)	Sound reduction index Rw (dB)	Weight (kg/m²)
80	0,26	0,21	24 14,90 QuadCore
100	0,20	0,17	24 15,62 QuadCore

Flat roof panels with K-ROC® mineral fiber insulation | Czech

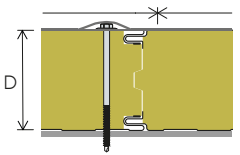
KS FP K-Roc®
Roof Panel

- K-ROC® mineral fiber insulation
- Not combustible
- Through fixed
- A2-s1, d0

*The technical data is valid for a module width of 1000 mm
Available in external profile: Q (minibox), M (micro), E (eurobox), B (box)



Available in internal profile: Q (minibox), B (box)



Application

Method of fixing to the structure: anchoring screws with plate washer through the thickness of the panel.

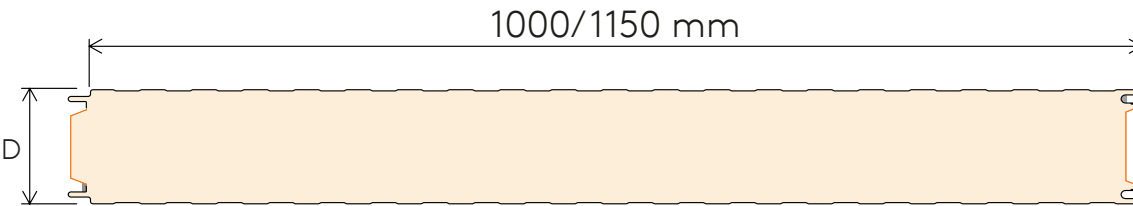
Core thickness d (mm)	Heat transfer coefficient U (W/m²K)	Sound reduction index Rw (dB)	Weight (kg/m²)
60	0,69	-	31 16,57
80	0,53	-	31 18,97
100	0,41	-	32 20,38
120	0,35	-	32 22,58
140	0,30	-	32 24,78
150	0,28	-	32 25,88

Flat roof panels with IPN insulation core | Czech

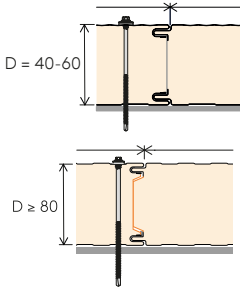
KS NR
Roof Panel

- IPN insulation core
- Through fixed
- B-s2, d0 (40mm)
- B-s1,d0 (60 - 200mm)

*The technical data is valid for a module width of 1000 mm
Available in external profile: M (micro)



Available in internal profile: Q (minibox)



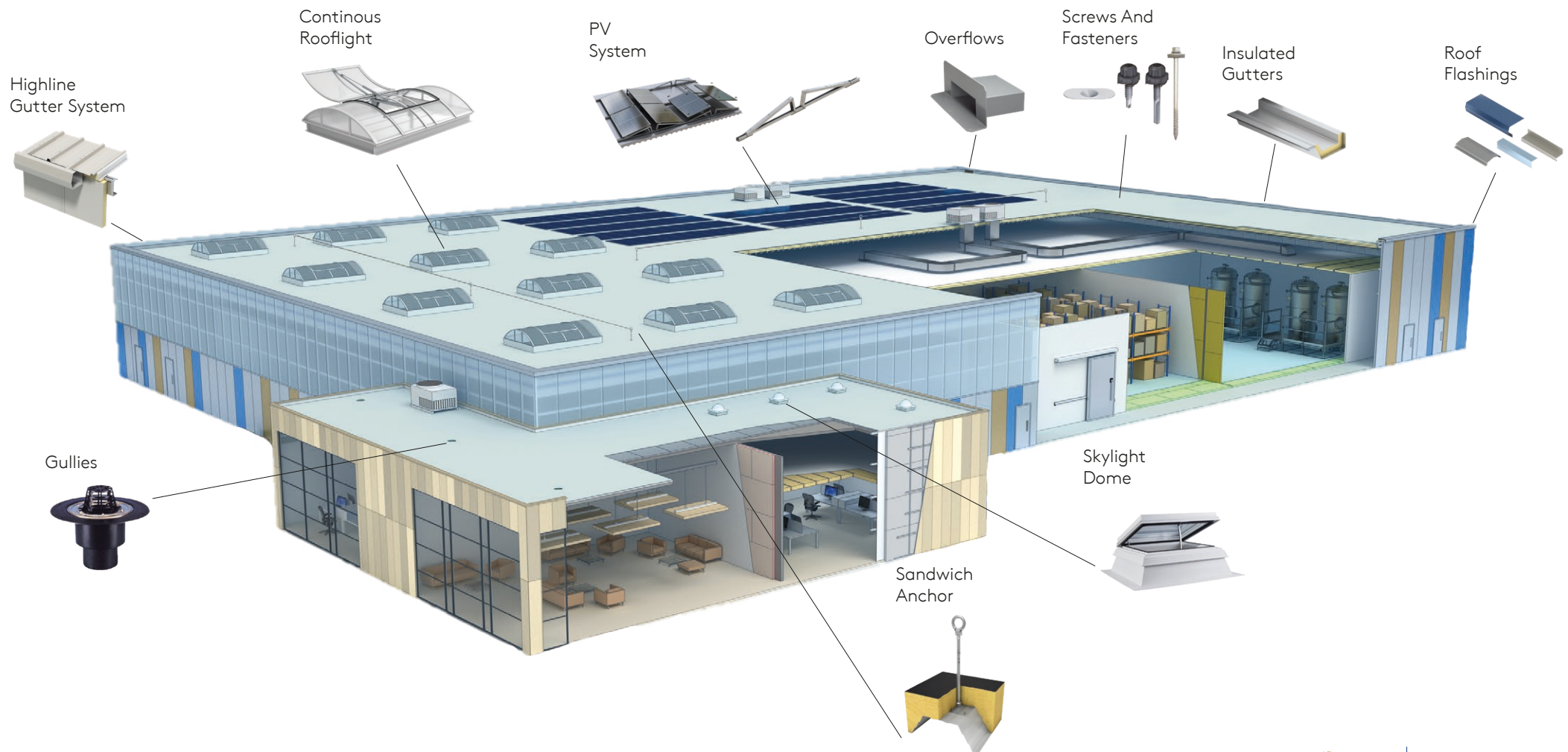
Application

Method of fixing to the structure: anchoring by screws with plate washer through the thickness of the panel.

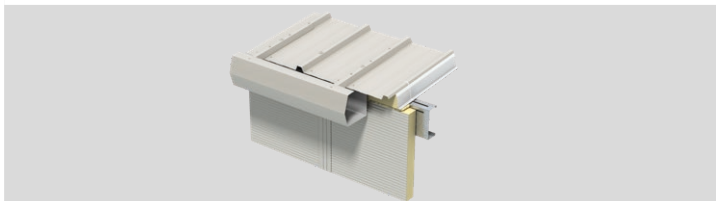
Core thickness d (mm)	Heat transfer coefficient U (W/m²K)	Sound reduction index Rw (dB)	Weight (kg/m²)
40	0,60	-	24 10,12
60	0,37	-	25 10,88
80	0,27	-	25 11,64
100	0,22	-	26 12,40
120	0,18	-	26 13,16
150	0,15	-	27 14,30
170	0,13	-	27 15,06
200	0,11	-	27 16,20

Our accessories for flat roofs

At Kingspan, we provide a full range of premium accessories for flat roofs, designed to enhance performance, safety, and appearance. Every component is engineered for seamless integration with our roofing systems—ensuring long-lasting protection, easy installation, and a clean, professional finish.



Highline Gutter System



Highline gutters offer a lightweight, effective water drainage solution. They are available in square and round cross-sections, made of galvanized steel with a thickness of 0.6 mm and a single-sided coating (polyester/PES 25 µm).

Continuous Rooflight



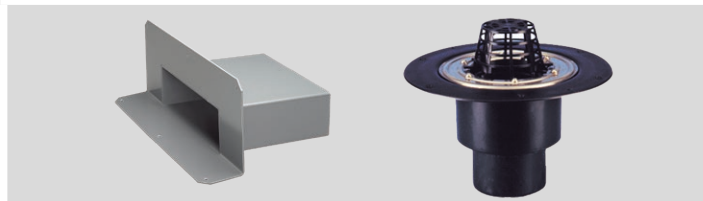
In addition to its main function, the NSEV 48V smoke and heat exhaust fan can also be used for natural ventilation without the need to install another device. Furthermore, it can operate even under a maximum snow load of 2,250 N/m².

Sandwich Anchor



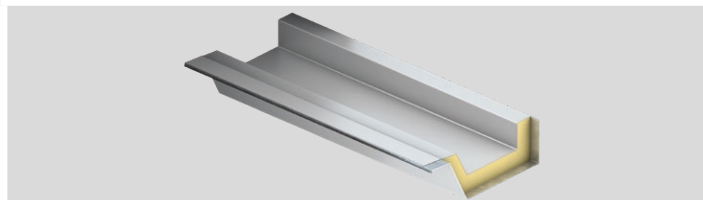
The stainless steel anchor point (Ø 16 mm) with base plate for the Kingspan X-Dek™ flat roof system protects people against falls. The Kingspan X-Dek™ anchor point is inserted through a pre-drilled hole from the inside to the outside and is attached to the trapezoidal sheet metal using the base plate and the screws supplied.

Overflows And Gullies



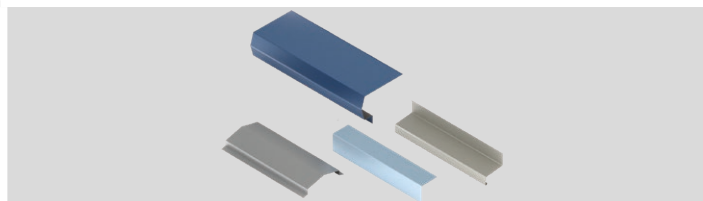
For the lateral drainage of enclosed roof areas, balconies, etc, emergency overflows have proven themselves in practice. Emergency drainage of flat roofs, e.g. in case of a century rain event to be considered, can be carried out in this way. The Gully screw flange is a loose flange design for on-site connection of roofing membranes using stainless steel screws, with all necessary materials included.

Insulated Gutters



Insulated gutters provide excellent drainage for gable roofs. They are made of 0.6 mm galvanized steel with a 25 µm PES coating, available in standard colors. Manufactured with IPN foam or mineral fibre insulation, they are thermal bridge-free drainage structures.

Roof Flashings



These roofing elements are essential accessories for roof structures, offering durable, customizable solutions. They are made of coated galvanized steel, with a spread width of up to 1250 mm and a length of up to 8000 mm.

Screws And Fasteners



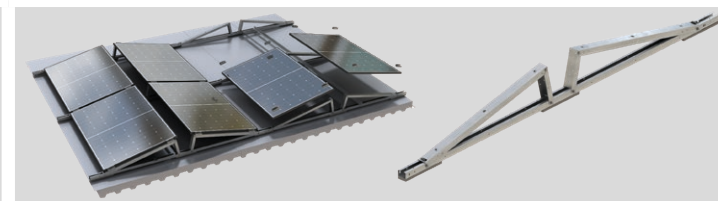
The panels are usually fastened to the supporting structure using self-drilling or self-tapping screws. Depending on the material of the supporting structure, these can be fasteners for steel, concrete, or wood structures. Self-drilling screws drill the hole, cut the thread, and fasten the components together in a single step.

Skylight Dome



The skylight domes can be seamlessly integrated into Kingspan's flat roof panels, ensuring quick installation, high precision, and optimal light output. Available in a range of colors and finishes, they provide a sleek, elegant finish. Prefabrication allows for quick, easy, and highly accurate installation.

PV System



Fast and simple installation of the PV mounting system, designed to work flexibly with Kingspan products. The use of Magnelis steel provides the required corrosion resistance, while its excellent electrical conductivity supports effective grounding of the installation. Support and system design using specialized software are provided as standard.

WE ARE PLANET PASSIONATE

Planet Passionate is our ambitious Group-wide environmental sustainability programme that aims to impact global issues.



Kingspan flat roofs combine performance, durability, and design—built to protect and inspire for years to come.

Access to the most up-to-date information on FM Approvals can be found at: www.roofnav.com

The information provided in this publication is accurate as of its date of publication and represents our commitment to quality and transparency. However, Kingspan Insulated Panels reserve the right to modify product specifications without prior notice to reflect advancements or improvements.

For applications not explicitly covered within this publication, consultation with our Technical Advisory Service is strongly advised to ensure the product meets your specific requirements.

Customers are responsible for verifying the product's suitability for their particular needs and for ensuring compliance with all applicable laws and regulations.

We reserve the right to update this publication, and any other informational materials, at our discretion and without notice.

For the latest information, please visit: www.kingspan.com

For the latest and most comprehensive product details, always refer to the latest information by scanning the QR codes.

Issue: 2026/02

Poland



Hungary



Czech

