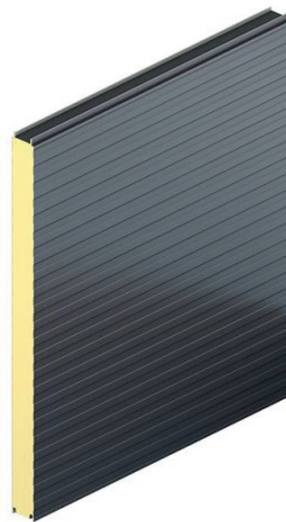


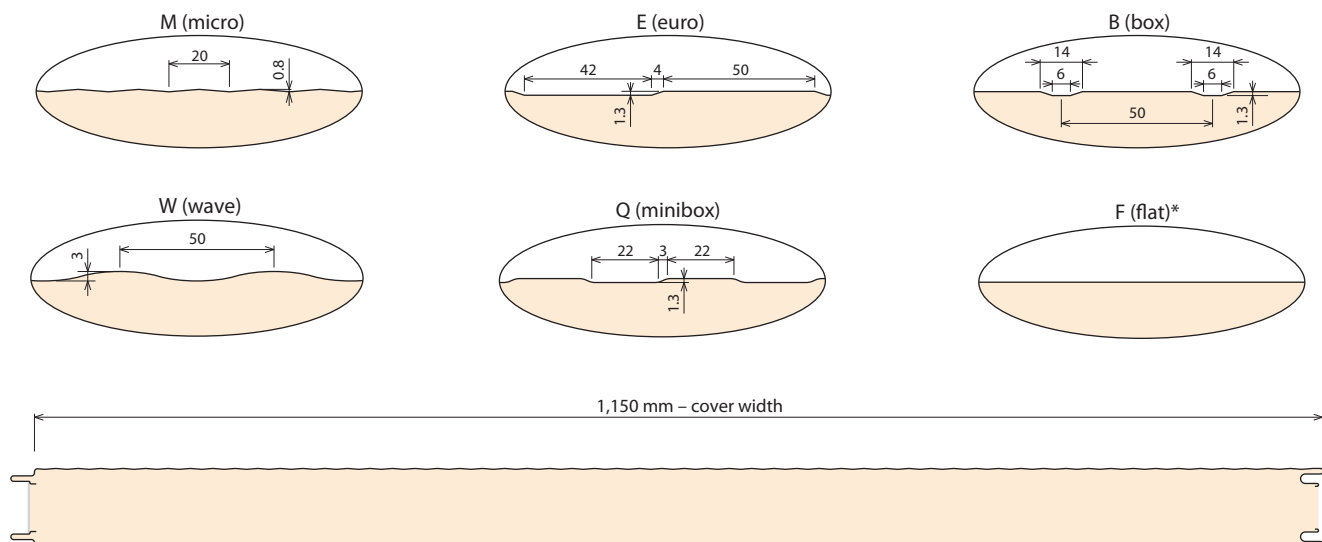
Application

The KS1150 TF/NF is a through fixed wall system which can be laid vertically or horizontally and is suitable for wall claddings on all types of buildings.

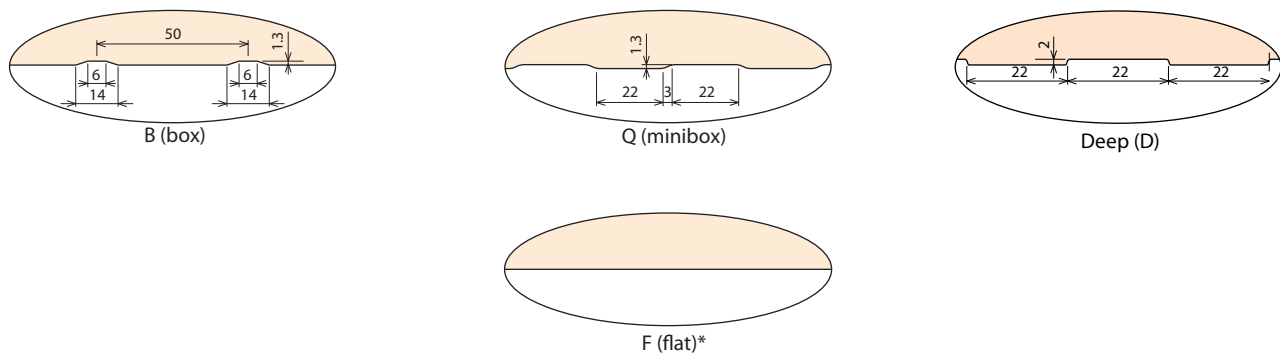


Dimensions & Weight

External Facing Profiles



Internal Facing Profiles



*F (flat) is non-standard profile. Please contact with our sales rep for more information.

Panel Thickness [mm]		40	50	60	70	80	100	120	150	170	200
Weight [kg/m ²]	sheet 0.6/0.4 mm	10.09	10.49	10.89	11.55	11.69	12.49	13.29	13.74	14.44	15.49

Product Tolerances

All materials intended for production of composite panels are in compliance with national regulations and standards. Dimensional tolerances of Kingspan insulated panels correspond to EN 14509 annex D.

Parameter	Tolerance
Panel Length (l)	
$l < 6 \text{ m}$	$\pm 4 \text{ mm}$
$6 \text{ m} \leq l < 12 \text{ m}$	$\pm 6 \text{ mm}$
$l \geq 12 \text{ m}$	$\pm 8 \text{ mm}$
Panel width	$\pm 3 \text{ mm}$
Panel thickness (d)	
$d \leq 50 \text{ mm}$	$\pm 2 \text{ mm}$
$50 \text{ mm} < d < 100 \text{ mm}$	$\pm 3 \text{ mm} \quad -2 \text{ mm}$
$d \geq 100 \text{ mm}$	$\pm 3 \text{ mm}$
Squarness of the cut end	$\leq 0.5\%$ of the panel width
Panel bow	$(\Delta 1 + \Delta 2)/2 \leq 10 \text{ mm}$

Available Lengths

The standard panel length is between 2 and 13.5 meters. Panels shorter than 2 m and longer than 13.5 m are available on request. Please contact your Kingspan sales partner.

Certification Reference

Kingspan possesses a wide range of insulated panel approvals (building, technical, thermal, static, fire, acoustic).

Steel

Galvanic protection options

- Hot-dip zinc coated steel with a total of 275 g/m² of zinc, according to EN 10147:2000. This can be finished with a number of coatings – Polyester, Spectrum™, PVDF and Foodsafe finishes.

Substrate thicknesses

- Standard external sheet thickness 0.60 mm.
- Standard internal sheet thickness 0.40 mm.
- Other thicknesses are available by arrangement with Kingspan.

External Coating Options

1. Standard Polyester – PES

Polyester is a universal, economic coating system suitable for exterior and interior applications. The nominal coating thickness is 25 µm.

2. Spectrum™

Kingspan Spectrum™ is a 50 µm Polyurethane coated semi gloss finish with a slight granular effect. It offers an outstanding durability- and weather resistance performance, excellent corrosion and UV-resistance as well as high color & gloss retention characteristics.

Its superior flexibility enables high resistance against mechanical damages. Kingspan Spectrum is available in a wide range of solid and metallic colours.

Furthermore it is free of chlorine, phthalates and plasticizers and 100% recyclable.

Further coatings on request.

Internal Coating Options

1. Thin Coating – DU

Polyester coating with a nominal thickness of 15 µm. The standard colour is grey white, (similar RAL 9002).

2. Standard Polyester – PES

Polyester is a universal, economic coating system suitable for exterior and interior applications. The nominal coating thickness is 25 µm.

3. Foodsafe

The surface of this 150 µm thick polymer coating is non-toxic and resistant to mould, durable and easy to clean. It is chemically inert and safe for continuous contact with unpacked food. The standard colour is white. Consult Kingspan about the availability of other colours.

Other coating systems are available by discussion with Kingspan.

Plain and coloured aluminium is available on a project specific basis. Contact Kingspan Technical Services.

Insulation Core

A standard insulation core of a FireSafe IPN closed-cell or innovative hybrid QuadCore foam are used.

It is made to a non-deleterious specification with Zero Ozone Depletion Potential ODP and is CFC/HCFC free.

Seals

Factory Applied Side Joint Tape

All KS1150 TF/NF panel side joints have factory applied anti-condensation seals fitted into the groove to automatically seal the joint between panels.

Wall System KS1150 TF/NF

Product Data

Performance

Thermal Insulation according to EN ISO 10211-2

Panel Thickness [mm]		IPN	QuadCore
		$\lambda = 0.0224$ [W/mK]	$\lambda = 0.0180$ [W/mK]
U [W/m²K]			
TF	40	0.595	
TF	50	0.447	
TF	60	0.371	
TF	80	0.277	
TF	100	0.221	0.180
NF	120	0.185	0.150
NF	150	0.149	0.120
NF	170	0.131	0.110
NF	200	0.112	0.090

U – Thermal transmittance W/m²K

λ – Long-term Thermal conductivity W/mK

Biological

Kingspan insulated sandwich panels are immune to attack from mould, fungi, mildew and vermin. No urea formaldehyde is used in the construction, and the panels are nondeleterious.

Fire

Panels with FIREsafe IPN core are classified as B-s1,d0 according EN 13501-1.

Panel Thickness [mm]	Fire resistance according EN 13501-2	
	External walls	Internal walls
40		
50	N/A	N/A
60	EI 15-ef(o→i)	
70	EW15(i→o)	
80	EI 15-ef(o→i) EW30-ef(o→i) EW15(i→o)	
100		EI 15
120		
150	EI 20-ef(o→i)/ EW15(i→o)	
170		
200		

Acoustics

Panel Thickness [mm]	single figure weighted sound reduction R_w [dB]
40	24
50, 60, 80	25
100, 120	26
150, 170, 200	27

Building Regulations

Kingspan KS1150 TF/NF insulated sandwich panels apply to the european standard EN 14509: Self-supporting double skin metal faced insulating panels and conform to additional National Building Regulations and standards.

Quality

Kingspan insulated sandwich panels are manufactured from the highest quality materials, using state of the art production equipment to rigorous quality control standards, complying with ISO9001:2008 standards, ensuring long term reliability and service life.

Guarantees & Warranties

Kingspan will provide external coating, product guaranties on an individual project basis.

Packing

Standard packing – road transportation

KS1150 TF/NF panels are stacked weather side to internal side. The top, bottom, sides and ends are protected with foam and timber packing and the entire palette is wrapped in plastic.

The number of panels in each pack depends on panel thickness and length. The table below is shown as a guide. Quantities are reduced for exceptionally long panels. Typical palette height is 1,100 mm.

Maximum palette weight is 4,200 kg.

Panel core thickness [mm]	40	50	60	80	100	120	150	170	200
Number of panels in package	27	22	18	13	11	9	7	6	5

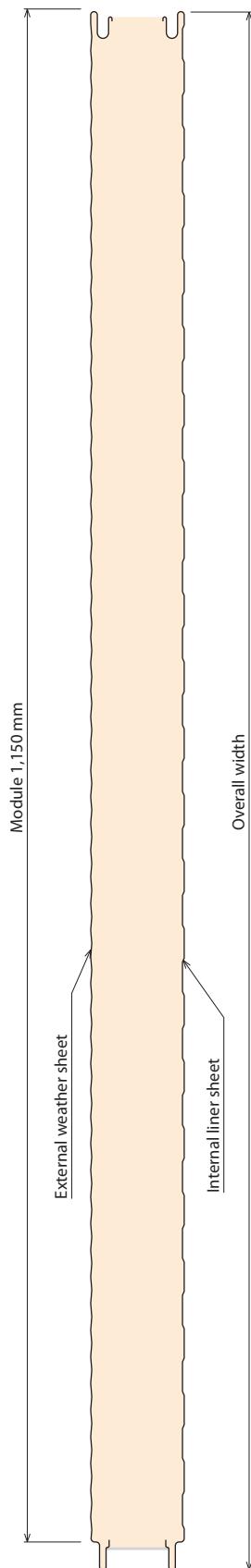
Delivery

All deliveries (unless indicated otherwise) are by road transport to project site. Off loading is the responsibility of the client.

Site Installation

Site assembly instructions are available from Kingspan.

Kingspan will arrange training of the site fitters and supervisors if requested.



Available Panel Thicknesses

Panel Thickness (D) [mm]	Overall Panel Width [mm]
40	
50	
60	
80	
100	1,171
120	
150	
170	
200	

