

Sandwich panel nSPB WS for external wall and ceiling

Sandwich panel **nSPB WS** is available in thicknesses 100 - 230 mm.

It is a perfect solution for most buildings and structures, combining **high quality** with **very good technical properties**. Advanced technology contributing to the improvement of **panel strength** ensures very good mechanical properties of this sandwich panel.

With the filling consisting of non-combustible and environmentally friendly hard mineral wool, this sandwich panel ensures **excellent fire resistance**.

The gaskets integrated in the joint provide reliable airtightness of the panel as a standard. For maximum performance of the wall as a whole upgrade to the full Ruukki Airtightness package including dedicated details and accessories.

[Read more on airtightness package.](#)

Optionally, on request, **nSPB WS** sandwich panel can be delivered as FM Approved product with a certificate granted by the world-biggest insurance company FM Global. The global certificate received based on 4880 and 4881 standards confirms that a building's envelope made of these sandwich panels from Ruukki ensures the highest safety level in case of fire or hurricane.

For all needed information about FM Approved panels, please contact Ruukki Sales.

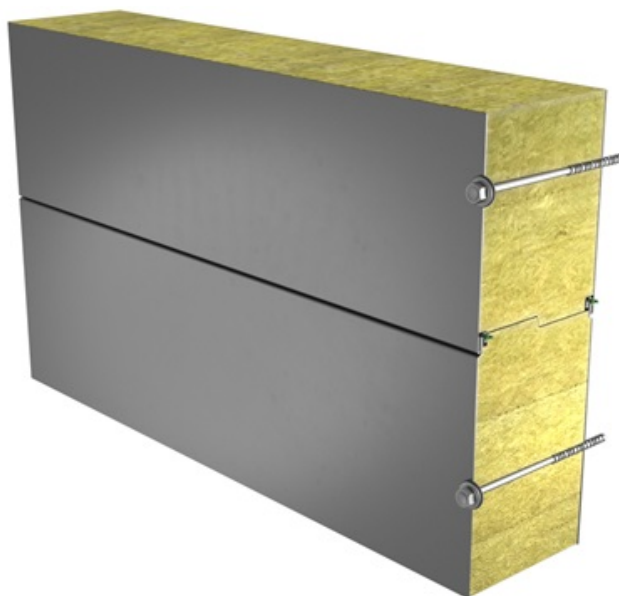


Application:

- External walls
- Internal walls
- Ceilings

This product is optionally available with following sustainable features:

- Steel facings made of recycled steel (SSAB Zero) for significantly lower CO₂ emissions and high circularity - available as Ruukki LowCarbon
- Ruukki Airtightness package for lower CO₂ emissions during the use phase of the building



SEND CONTACT REQUEST

The information on our website is accurate to the best of our knowledge and understanding. Although every effort has been made to ensure accuracy, the company cannot accept any responsibility for any direct or indirect damages resulting from possible errors or incorrect application of the information of this publication. We reserve the right to make changes.

Properties

Model name	Sandwich panel nSPB WS for external wall and ceiling
Standard module width	1100 mm
Optional module width (B)	1000 mm
Minimum length	2000 mm
Maximum Length	12000 mm
External facing thickness	0,5 mm * 0,6 mm
Internal facing thickness	0.5 mm
External Fire Exposure	NRO
Air Tightness	q50=0,01 m3/hm2 (pressure and suction) for thicknesses ≥ 150 mm

*External facing thickness 0,5 mm is a standard option for the following colors: RAL9002 (RR1G6), RAL9010 (RR1G5) (all modular widths), RAL7035 (RR2B1) and RAL9006 (RR946) (modular widths: 1100 mm and 1000 mm)

Thickness D (mm)	100	120	140	150	160	170	180	200	230
Weight (kg/m ²)	22.4	24.8	27.2	28.4	29.6	30.8	32	34.4	38
U-value (W/m ² K)	0.43	0.36	0.31	0.29	0.27	0.26	0.24	0.22	0.19
Sound insulation Rw (dB)	32	32	32	32	32	32	32	32	32
Reaction to fire	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0
GWP-total, A1-A3 (kg CO ₂ e/m ²)	31,3	32,4	33,4	33,9	34,5	35	35,5	36,6	38,1
GWP-total, A1-A3 (kg CO ₂ e/m ²) for Ruukki® LowCarbon	-	-	-	-	-	-	-	-	-

Wall fire resistance values & max span horizontal / vertical orientation (m):	100	120	140	150	160	170	180	200	230
EI 30	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5	9.0 / 8.8	9.0 / 8.8	9.0 / 8.8	9.0 / 8.8	9.0 / 8.8	9.0 / 8.8
EI 60	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5	9.0 / 8.8	9.0 / 8.8	9.0 / 8.8	9.0 / 8.8	9.0 / 8.8	9.0 / 8.8
EI 90	7.5 / 4.0	7.5 / 4.0	7.5 / 7.5	7.5 / 8.8	7.5 / 8.8	7.5 / 8.8	7.5 / 8.8	7.5 / 8.8	7.5 / 8.8
EI 120	-	-	-	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5
EI 180	-	-	-	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5

Ceiling fire resistance values & maximum span lengths (m):	100	120	140	150	160	170	180	200	230
EI 30 (fire from below)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
EI 60 (fire from below)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

Stitched joint on upper facing is required.

Detailed information regarding the application of fire resistance ratings can be obtained from Ruukki Sales.

All properties are declared in accordance with EN 14509 and related standards.

Coatings and colors

Materials

Facing	Coating	Gloss level (GU)	Corrosivity category	UV resistance	Colours
External	GreenCoat Pural BT Satin	20	C4	Ruv4-5	RAL9010 (RR126)

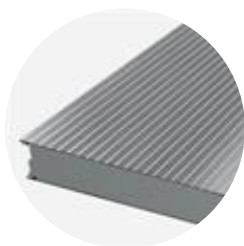
External	GreenCoat Pural BT Metallic	40	C4	Ruv4	RAL9006 (RR40), RAL9007 (RR41)
External*	Polyester	35	C3	Ruv2-3	RAL1015 (RR807), RAL1021, RAL2003, RAL3000 (RR770), RAL3009 (RR29), RAL3013 (RR774), RAL5003 (RR4F8), RAL5005 (RR4A8), RAL5012 (RR408), RAL6011 (RR526), RAL6018 (RR5G8), RAL7015 (RR23), RAL7016 (RR288), RAL7035 (RR2B1), RAL7040 (RR287), RAL9002 (RR1G6), RAL9003 (RR106), RAL9006 (RR946), RAL9007, RAL9010 (RR1G5), Golden Oak
Internal	Polyester	35	C3	-	RAL9002 (RR1G6), RAL9010 (RR1G5)

**For optional modular width A = 1200 mm only a polyester coating in the following colors RAL 9002 (RR1G6), RAL 9010 (RR1G5), RAL 7035 (RR2B1), RAL 7016 (RR288), RAL9006 (RR946), RAL 9007 is available.*

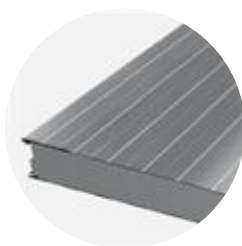
UV resistance describes how well the coating is able to keep its original colour and gloss levels in accordance with EN10169. The higher the class, the better the resistance.

Corrosivity categories describe the outdoor climate conditions in accordance with EN12944. The higher the category, the more corrosive environment.

Profile options



Profile option Rib 28



Profile option Linear



Profile option Micro



Profile option Rib 275



Profile option Rib 550



Profile option Flat

Modular width	Facing	Profile options
1100 mm	External	L, L25, M, R28, R275, R550, F

	Internal	L, L25, F
1000 mm (B)	External	L, L25, M, R28, R250, R500, F
	Internal	L, L25, F
1200 mm (A)	External	L, M
	Internal	L

Design tools



Traypan® software for designing sandwich panels

With TrayPan®, you can design metal faced sandwich panels made by Ruukki. A panel structure can be designed as a single- or multi-span construction. You can easily give, with a few parameters, both suction and pressure loads caused by the wind. The application also calculates the necessary fasteners.

[Go to Traypan®](#)



Download BIM objects to your desktop

ProLib brings Ruukki products as BIM models directly to your desktop in 3D form for design programs AutoCad, Autodesk Revit, Archicad and Tekla Structures. Product libraries compile all necessary design models and detailed drawings in one place. Library updates are automatically notified, so as a user you can be sure that your product information is consistently up to date. ProdLib can also be used as a standalone desktop application.

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Technical documents

Here you can find all technical documents related to Ruukki's sandwich panels. Documents are

organised by document type. Click to enter document library.

**Product
descriptions**



**Accessory
documents**



Load tables



**Installation
instructions**



**Maintenance
instructions**



**Sound insulation
values**



Certificates and approvals

Here you can find all certificates and approvals related to Ruukki's sandwich panels. Documents are organised by document type. Click to enter document library.

**Declaration of
performance**



**Environmental
product declaration**



**Intruder resistance
certificate**

