Sandwich panel SPA S for external wall and ceiling

Sandwich panel **SPA S** is available in thicknesses 100 - 230 mm.

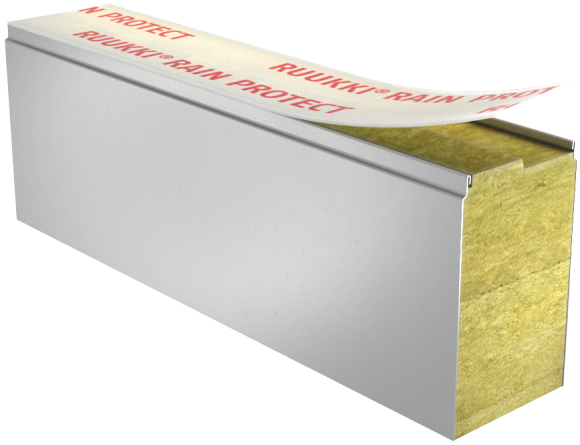
It is a perfect solution for most buildings and structures, combining high quality with very good technical properties. Advanced technology contributing to the improvement of panel strength ensures **very good mechanical properties** of this sandwich panel.

This panel type is **intruder resistant** in accordance with SSF 1047, class 2 (see Certificates & approvals).

With the filling consisting of non-combustible and environmentally friendly hard mineral wool, this sandwich panel ensures **excellent fire resistance**. Properly milled core increases **air-tightness** and contributes to **outstanding sound insulation**.

Application:

- External walls
- Ceilings



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Properties

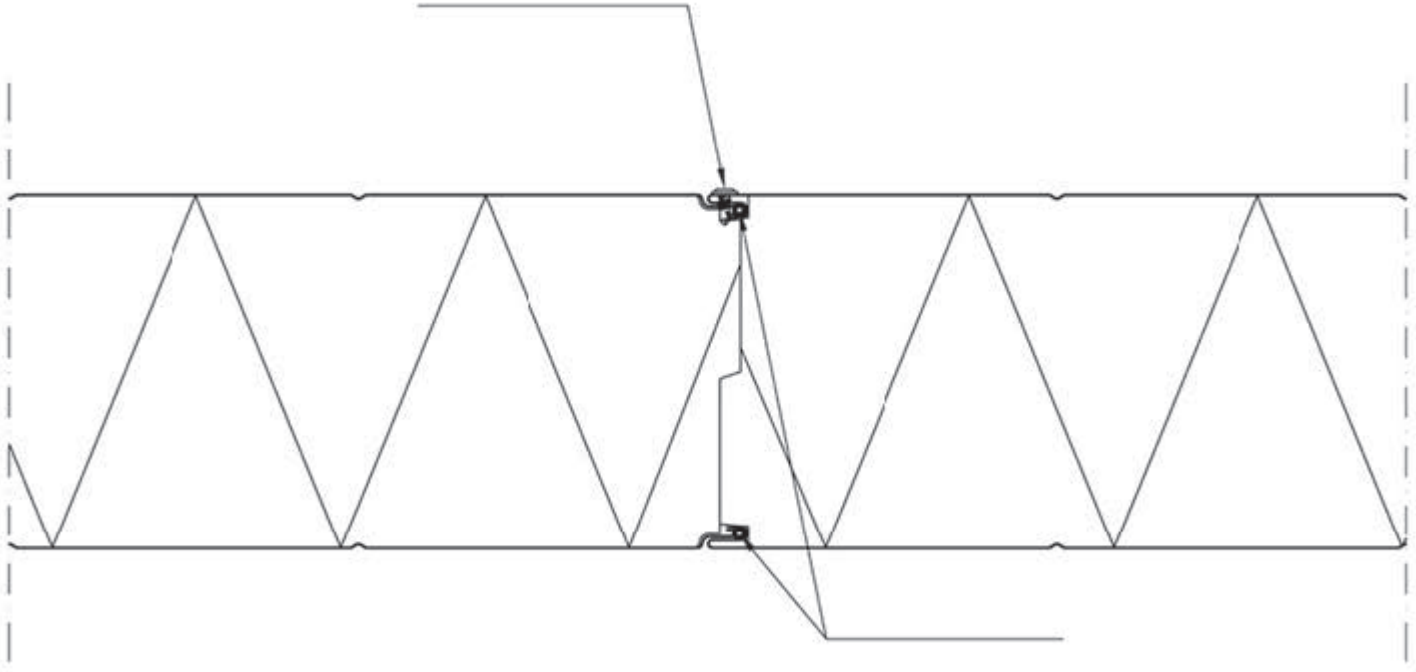
Model name	Sandwich panel SPA S for external wall and ceiling
Standard module width	1200 mm
Minimum length	2000 mm
Maximum Length	13500 mm
External facing thickness	0.6 mm
Internal facing thickness	0.5 mm

Thickness D (mm)	**100**	**125**	**150**	**175**	**200**	**230**
Weight (kg/m^2)	22.3	25.7	28.9	31.6	34.5	38.5
U-value (W/m^2K)	0.45	0.35	0.29	0.25	0.22	0.19
Sound insulation Rw (dB)	30	31	31	31	31	31
Reaction to fire	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0	A2-s1, d0

Wall fire resistance values & max s pan horizontal / vertical orientatio n (m):	**100**	**125**	**150**	**175**	**200**	**230**
EI 30	7.5 / 7.5	7.5 / 7.5	9.0 / 8.8	9.0 / 8.8	9.0 / 8.8	9.0 / 8.8
EI 30 (stainless steel)	7.5 / -	7.5 / -	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5
EI 60	7.5 / 7.5	7.5 / 7.5	9.0 / 8.8	9.0 / 8.8	9.0 / 8.8	9.0 / 8.8
EI 60 (stainless steel)	4.0 / -	4.0 / -	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5
EI 90	7.5 / 7.5	7.5 / 7.5	7.5 / 8.8	7.5 / 8.8	7.5 / 8.8	7.5 / 8.8
EI 90 (stainless steel)	-	-	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5
EI 120	6.0 / 4.0	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5
EI 120 (stainless steel)	-	-	6.0 / 7.5	6.0 / 7.5	6.0 / 7.5	6.0 / 7.5
EI 180	-	6.0 / -	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5
EI 240	-	-	6.0 / 6.0	6.0 / 6.0	6.0 / 6.0	6.0 / 6.0

Ceiling fire resistance values & maximum span l engths (m): stitched joint on upper facing	100	125	150	175	200	230
EI 60 (fire from below)	6.3	6.3	6.3	6.3	6.3	6.3
EI 90 (fire from below)	6	6	6	6	6	6
EI 120 (fire from below)	6	6	6	6	6	6

Please note: The fire resistances of an SPA S compartment ceiling panel structure apply to panels treated with Hiarc and polyester coatings.



Tests have been performed to determine the fire resistance, related maximum span length and other relevant properties of the panels. The fire reaction class of the panels is A2-s1,d0 (surface: Hiarc, polyester and uncoated stainless steel).

In the event of a fire, the panels act as a rope (catenary) structure. Details, fastenings and their appropriate fire protection must be designed in such a way that the fastenings at the upper or lower surface of the panel can withstand the entire load caused by the panel structure in the event of a fire. The fastenings, dimensioning and the implementation of details must comply with the instructions.

Due to structural tightness requirements, seals must be installed in the panel joints on both upper and

lower facings of the panel.

Due to fire resistance, the tongues and grooves at the upper facings of panel ceiling must be fastened to each other with small screws (Ø min. 4.2 mm), spacing max. 500 mm.

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	Corrosivity category	UV resistance	Colours
External	GreenCoat HIARC MAX	C4	Ruv4	RR20, RR21, RR22, RR23, RR29, RR33, RR35, RR40, RR41, RR45
External	GreenCoat HIARC	C3	Ruv4	RR20, RR21, RR22, RR23, RR29, RR33, RR35, RR40, RR41, RR45
External	GreenCoat HIARC matt	C3	Ruv4	RR33, RR40, RR41
External	Polyester	C3	Ruv2-3	RR20, RR21, RR23, RR946
Internal	Polyester	C3	-	RR20
Internal	PVC laminate *	C4	-	White
Internal	Stainless steel *	C4	-	-

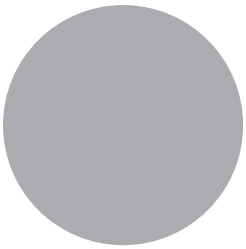
**) optional material*

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.

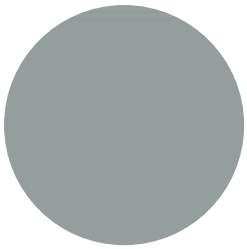
Corrosivity categories describe the outdoor climate conditions in accordance with EN12944. The

higher the category, the more corrosive environment.

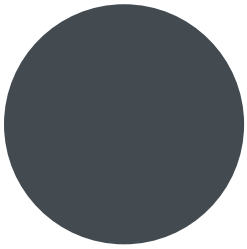
RR20 White



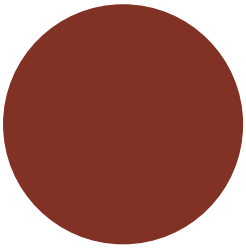
RR21 Light Grey



RR22 Grey

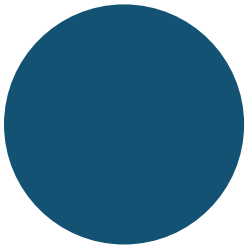


Graphite ~ RAL 7024



RR29 Red

RR33 Black

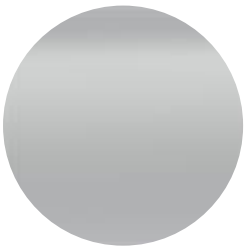


RR35 Blue

RR40 Silver matt

RR41 Dark silver matt

RR45 Metallic graphite



RR946 Metallic silver

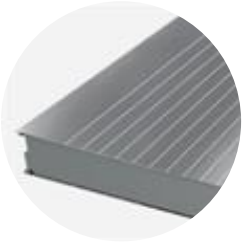
Profile options

Micro 15

Rib 150

Rib 200

Rib 600



Linear 50

Flat F

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®

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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

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