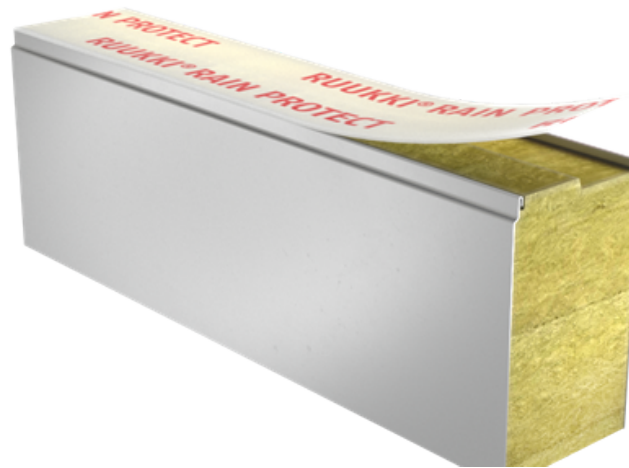


# SANDWICH PANEL SPA F FOR EXTERNAL AND INTERNAL WALL



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

The panel's excellent quality ensures **very good fire resistance properties**, thus increasing fire safety of buildings. This panel type is **intruder resistant** in accordance with SSF 1047, classes 2 & 3 (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
- Internal walls

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 SPA F for external and internal wall

<b>Standard module width</b>	1200 mm
<b>Minimum length</b>	2000 mm
<b>Maximum Length</b>	13500 mm
<b>External facing thickness</b>	0.60 mm
<b>Internal facing thickness</b>	0.50 mm

## PROPERTIES BY PANEL THICKNESS

<b>Thickness D (mm)</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>175</b>	<b>200</b>	<b>230</b>
Weight (kg/m <sup>2</sup> )	22.3	25.1	28.2	30.7	33.5	37.4
U-value (W/m <sup>2</sup> K)	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
<b>Wall fire resistance values &amp; max span horizontal / vertical orientation (m):</b>						
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 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 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 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 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

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

### Changes to sandwich panel fire resistance standards (wall applications)

# COATINGS AND COLOURS

## MATERIALS

Facing	Coating	Corrosivity category	UV resistance	Colours
External	HIARC	C3	Ruv4	RR20, RR21, RR22, RR23, RR29, RR33, RR35, RR40, RR41, RR45
External	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

*\*) 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.*

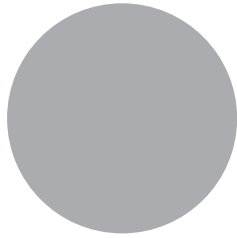
*Corrosivity categories describe the outdoor climate conditions in accordance with EN12944. The higher the category, the more corrosive environment.*

*Read more about UV-resistance and corrosivity categories.*

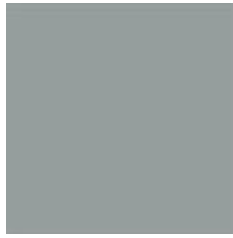
## COLOURS



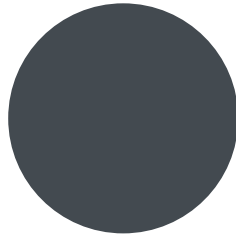
RR20 WHITE



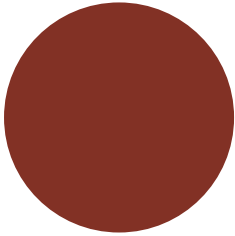
RR21 LIGHT GREY



RR22 GREY



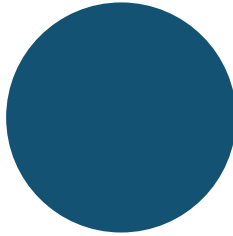
RR23 DARK GREY



RR29 RED



RR33 BLACK



RR35 BLUE



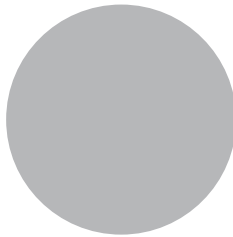
RR40 SILVER MATT



RR41 DARK SILVER MATT

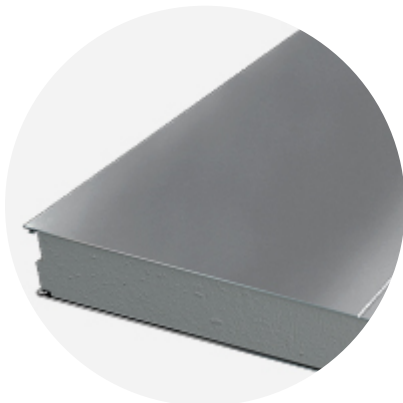


RR45 METALLIC GRAPHITE

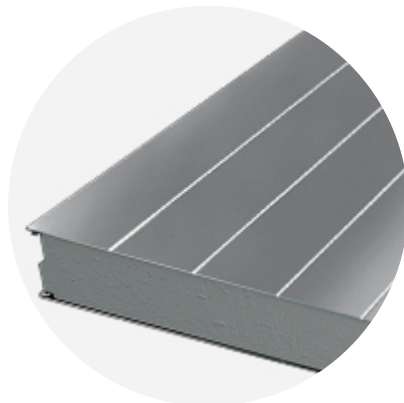


RR946 SILVER

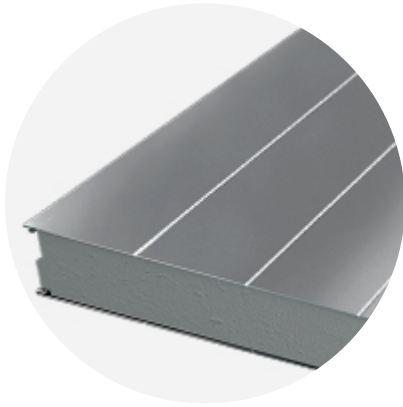
## PROFILE OPTIONS



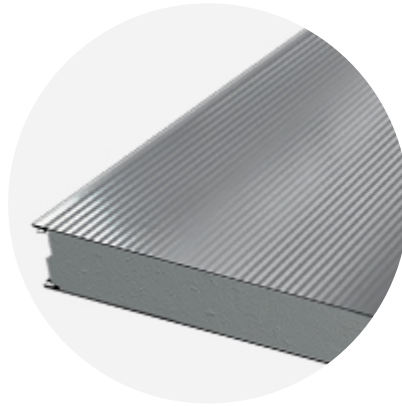
RIB 600



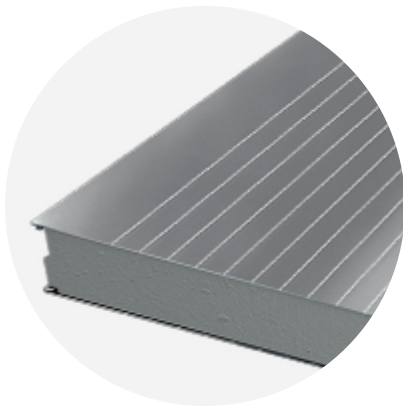
RIB 150



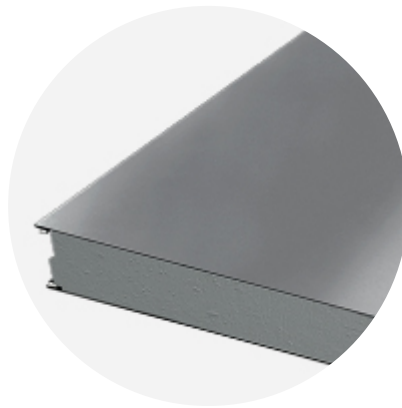
RIB 200



MICRO



LINEAR 50



FLAT

## DESIGN TOOLS

To make both architectural and structural design work easier, with accurate product information in 3D form, we offer a selection of CAD / BIM -objects and software tools, which can be downloaded from the Software Toolbox portal.

### READY MODELLED BIM OBJECTS

[Download objects for ArchiCAD](#)

[Download objects for Revit](#)

### SOFTWARE TOOL TRAYPAN FOR CHOOSING THE OPTIMAL PANEL TYPE





User-friendly TrayPan software takes into account load, temperature, span, U-value, fire resistance and acoustics.

TrayPan contains two user interfaces:





- Optimisation tool for quick and easy pre-selection
- Designer version for detailed structural analysis.

[Download Traypan](#)


## DETAIL DRAWING (.DWG)

-  **05 MAY, 2016**  
Ruukki-SPA-ENERGY\_external\_walls\_details\_EN  
DWG, 2.38 MB
-  **05 MAY, 2016**  
SPA\_compartment\_details\_wall\_en\_16052016  
DWG, 464.41 KB
-  **05 MAY, 2016**  
SPA\_compartment\_details\_ceiling\_en\_16052016  
DWG, 291.63 KB
-  **05 MAY, 2016**  
SPA external wall details EN  
DWG, 2.46 MB


## DETAIL DRAWING (.PDF)

-  **05 MAY, 2016**  
Ruukki-SPA-ENERGY\_external\_walls\_details\_EN  
PDF, 1.54 MB
-  **05 MAY, 2016**  
SPA external wall details EN  
PDF, 1.53 MB
-  **05 MAY, 2016**  
SPA\_compartment\_details\_wall\_en\_16052016  
PDF, 203.33 KB
-  **05 MAY, 2016**  
SPA\_compartment\_details\_ceiling\_en\_16052016  
PDF, 135.57 KB

## LOAD & SPAN TABLES FOR DIMENSIONING PANELS AGAINST LOADS

-  **05 MAY, 2016**  
EN\_Sandwich\_panel\_SPA\_Product\_description\_06\_2016  
PDF, 3.02 MB

## SOUND INSULATION VALUES

-  **15 DEC, 2016**  
EN\_Sandwich\_panel\_SPA\_Sound\_insulation\_values\_12\_2016  
PDF, 3.60 MB

# ACCESSORIES

Accessories for sandwich panels include flashings, fasteners, gaskets, and sealing flanges.

These accessories ensure fast assembly, fastening reliability, joint tightness, and aesthetic improvement. They are suitable for external and internal wall surface construction, as well as roofs - for construction projects of various sizes at any destination.



**05 MAY, 2016**

Accessories for SPA sandwich panels  
PDF, 6.09 MB

# INSTRUCTIONS

## ASSEMBLY INSTRUCTIONS

Assembly instructions document includes information about:

- Packing
- Transportation and unloading
- Storing
- Assembling



**05 MAY, 2016**

Assembly-instructions-for-sandwich-panels-SPA  
PDF, 2.16 MB

## MAINTENANCE INSTRUCTIONS

Maintenance instructions document contains information about:

- Washing
- Painting



**06 MAY, 2016**

Ruukki colour coated steel - Maintenance instructions  
PDF, 600.37 KB



**06 MAY, 2016**

Ruukki powder coated facade claddings - Maintenance instructions  
PDF, 602.18 KB

## PRODUCT DESCRIPTIONS

Product description includes information about:

- Panel structure
- Structural dimensioning

- Panel packaging
- Windows and corner panels
- Panel fastening



**05 MAY, 2016**

EN\_Sandwich\_panel\_SPA\_Product\_description\_06\_2016

PDF, 3.02 MB

## FACADE CLADDING INSTRUCTIONS

Ruukki Forma design instructions explain how to design façade cladding systems on top of Ruukki sandwich panels.



**01 JUN, 2016**

Ruukki Forma design instructions

PDF, 984.06 KB

## CERTIFICATES & APPROVALS

### DECLARATION OF PERFORMANCE



**16 OCT, 2017**

Declaration of Performance - SPA panels (stainless steel facings)

PDF, 378.51 KB



**05 MAY, 2016**

Declaration of Performance - Alajärvi MW panels

PDF, 487.76 KB

### ENVIROMENTAL PRODUCT DECLARATION



**05 MAY, 2016**

Ruukki-Light-weight-sandwich-element-system

PDF, 5.97 MB

Intruder resistance certificates



**25 JUL, 2016**

Intruder resistance class 2\_SPA F and S

PDF, 11.97 KB



**25 JUL, 2016**

Intruder resistance class 3\_SPA F

PDF, 12.58 KB