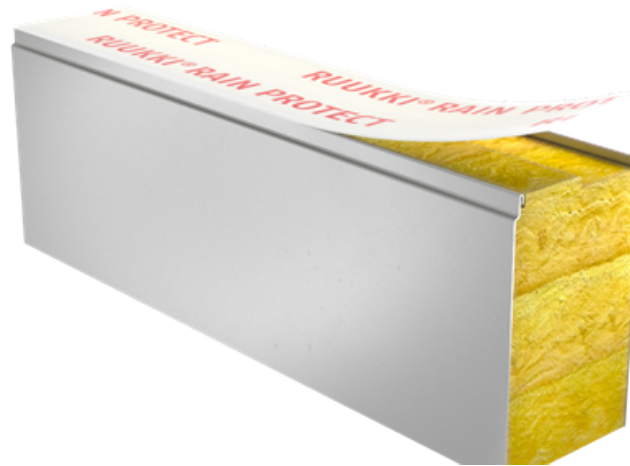


# SANDWICH PANEL SPA E LIFE ENERGY



Sandwich panel **SPA E LIFE Energy** is available in thicknesses 150 - 230 mm.

It ensures excellent air-tightness and energy efficiency. The application of special solutions with structural details and assembly services provided by skilled and certified contractors enable to decrease energy costs of the building and its CO2 emissions up to 20%.

With its exceptionally high recycled content, this sustainable sandwich panel minimises the use of raw materials and energy as well as reduces the carbon emissions during the construction phase. Our life panel can be re-used and fully recycled. It is an ideal solution for facades with high requirements for sustainability.

Using Ruukki's solutions you can receive more credits in LEED and BREEAM certification systems. This panel type is intruder resistant in accordance with SSF 1047, class 2 (see Certificates & approvals).

The filling consisting of non-combustible and environmentally friendly soft mineral wool with low U-value ensures very good thermal insulation of this panel. Properly milled core increases air-tightness and provides high sound insulation.

## **Application:**

External walls

The upper face of the panel includes a Ruukki® Rain Protect membrane that will prevent the insulation from getting wet during installation (panel thickness 150-230mm).

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

<b>Model name</b>	Sandwich panel SPA E life energy
<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
<b>Air Tightness n50 (1/h)</b>	q50 (m3/h, m2): 1.0 n50 (1/h): 0.3

## PROPERTIES BY PANEL THICKNESS

<b>Thickness D (mm)</b>	<b>150</b>	<b>200</b>	<b>230</b>
Weight (kg/m <sup>2</sup> )	19.5	22.2	24.2
U-value (W/m <sup>2</sup> K)	0.25	0.19	0.16
Sound insulation Rw (dB)	29	29	29
Reaction to fire	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 / -
EI 30 (stainless steel)	7.5 / -	7.5 / -	7.5 / -
EI 60	7.5 / -	7.5 / -	7.5 / -
EI 60 (stainless steel)	7.5 / -	7.5 / -	7.5 / -

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	Energy coating	C3	Ruv4	RR23, RR41
External	HIARC MAX	C4	Ruv4	RR20, RR21, RR22, RR23, RR29, RR33, RR35, RR40, RR41, RR45
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	Foodsafe laminate *	C4	-	White
Internal	Stainless steel	C4	-	-

*\*) optional material*

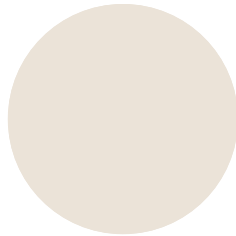
*UV resistance describes how well the coating is able to keep its original colour and gloss levels in accordance with EN10169. The higher the class, the better the resistance.*

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

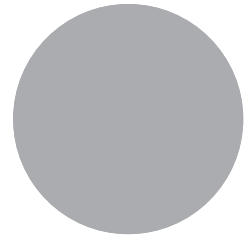
*Read more about UV-resistance and corrosivity categories.*



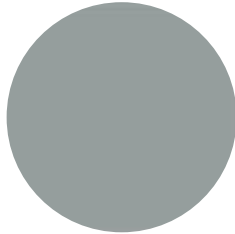
RR45 METALLIC GRAPHITE



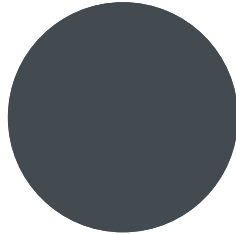
RR20 WHITE



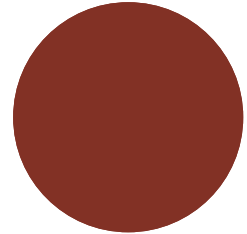
RR21 LIGHT GREY



RR22 GREY



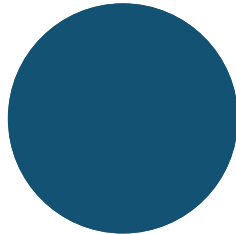
RR23 DARK GREY



RR29 RED



RR33 BLACK



RR35 BLUE

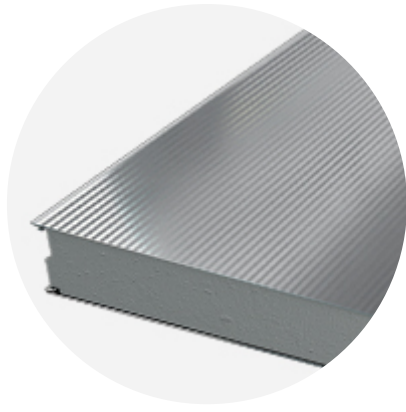


RR40 SILVER MATT

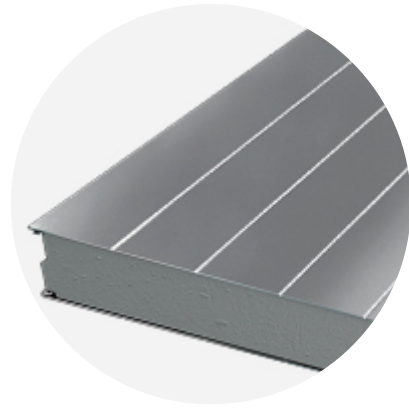


RR41 DARK SILVER MATT

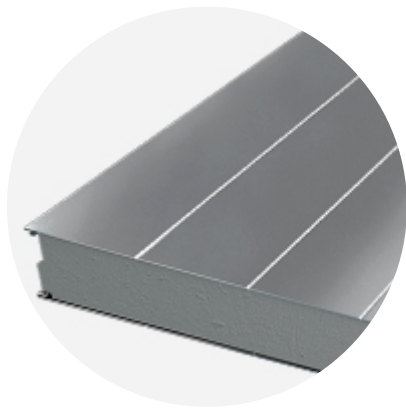
## PROFILE OPTIONS



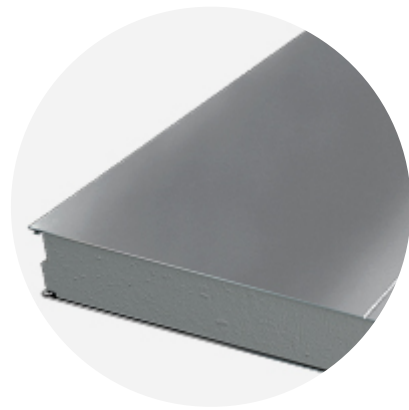
PROFILE OPTION MICRO V



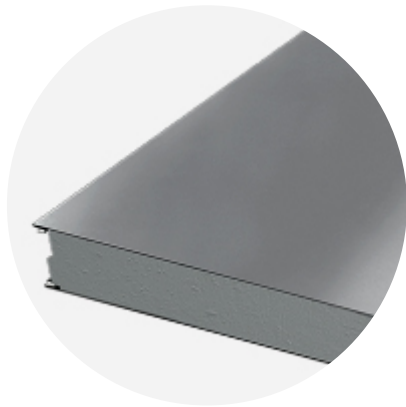
PROFILE OPTION RIB 150



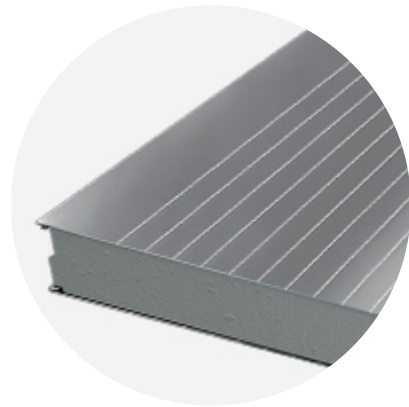
PROFILE OPTION RIB 200



PROFILE OPTION RIB 600



PROFILE OPTION FLAT



PROFILE OPTION LINEAR 50

## 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**

Ruukki-Detail\_drawings\_SPA\_external wall\_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 walls\_base detail drawings\_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, 1.39 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-steels-Maintenance-instructions


 PDF, 600.37 KB

**06 MAY, 2016**  
 Ruukki-Maintenance-instructions-powder-coated-facade-claddings  
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, 1.39 MB

## RUUKKI FORMA DESIGN INSTRUCTIONS

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


 Ruukki Forma design instructions


## CERTIFICATES & APPROVALS


### DECLARATION OF PERFORMANCE


**05 MAY, 2016**  
 Declaration of Performance 1/MW/ALA - Alajarvi MW panels  
PDF, 418.75 KB

### INTRUDER RESISTANCE CERTIFICATE

**24 SEP, 2019**  
 Certificate on Burglary Protection Class2-3 SPA F-S-E LIFE-E LIFE FORMA  
PDF, 129.58 KB

**25 JUL, 2016**  
 Intruder resistance walls Class2 SPA F and SPA S  
PDF, 11.97 KB

**25 JUL, 2016**  
 Intruder resistance walls Class3 SPA F  
PDF, 12.58 KB

**25 JUL, 2016**  
 Intruder resistance walls Class2 SPA E LIFE and SPA E LIFE FORMA





PDF, 12.52 KB

## ENVIROMENTAL PRODUCT DECLARATION



05 MAY, 2016

Ruukki-Light-weight-sandwich-element-system

PDF, 5.97 MB