Sandwich panel **SPA E** 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.

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.

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**PROPERTIES**

*Model name*  
Sandwich panel SPA E for external and internal wall

<table>
<thead>
<tr>
<th>Standard module width</th>
<th>1200 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum length</td>
<td>2000 mm</td>
</tr>
<tr>
<td>Maximum Length</td>
<td>13500 mm</td>
</tr>
<tr>
<td>External facing thickness</td>
<td>0.60 mm</td>
</tr>
<tr>
<td>Internal facing thickness</td>
<td>0.50 mm</td>
</tr>
</tbody>
</table>

**PROPERTIES BY PANEL THICKNESS**

<table>
<thead>
<tr>
<th>Thickness D (mm)</th>
<th>100</th>
<th>125</th>
<th>150</th>
<th>175</th>
<th>200</th>
<th>230</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (kg/m²)</td>
<td>21.4</td>
<td>24.5</td>
<td>27.4</td>
<td>29.8</td>
<td>32.5</td>
<td>36.2</td>
</tr>
<tr>
<td>U-value (W/m²K)</td>
<td>0.41</td>
<td>0.32</td>
<td>0.26</td>
<td>0.22</td>
<td>0.20</td>
<td>0.17</td>
</tr>
<tr>
<td>Sound insulation Rw (dB)</td>
<td>29</td>
<td>30</td>
<td>30</td>
<td>31</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Reaction to fire</td>
<td>A2-s1, d0</td>
<td>A2-s1, d0</td>
<td>A2-s1, d0</td>
<td>A2-s1, d0</td>
<td>A2-s1, d0</td>
<td>A2-s1, d0</td>
</tr>
</tbody>
</table>

**Wall fire resistance values**  
& max span horizontal / vertical orientation (m):

<table>
<thead>
<tr>
<th></th>
<th>EI 30</th>
<th>EI 30 (stainless steel)</th>
<th>EI 60</th>
<th>EI 60 (stainless steel)</th>
<th>EI 90</th>
<th>EI 90 (stainless steel)</th>
<th>EI 120</th>
<th>EI 180</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7.5 / 7.5</td>
<td>-</td>
<td>7.5 / 7.5</td>
<td>-</td>
<td>7.5 / 7.5</td>
<td>-</td>
<td>6.0 / 7.5</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>7.5 / 7.5</td>
<td>-</td>
<td>7.5 / 7.5</td>
<td>-</td>
<td>7.5 / 7.5</td>
<td>-</td>
<td>4.0 / -</td>
</tr>
<tr>
<td></td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>6.0 / -</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>7.5 / 7.5</td>
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<tr>
<td></td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>9.0 / 8.8</td>
<td>7.5 / 7.5</td>
<td>-</td>
</tr>
</tbody>
</table>

All properties are declared in accordance with EN 14509 and related standards.
## COATINGS AND COLOURS

### MATERIALS

<table>
<thead>
<tr>
<th>Facing</th>
<th>Coating</th>
<th>Corrosion class</th>
<th>UV resistance</th>
<th>Colours</th>
</tr>
</thead>
<tbody>
<tr>
<td>External</td>
<td>GreenCoat HIARC MAX</td>
<td>C4</td>
<td>Ruv4</td>
<td>RR20, RR21, RR22, RR23, RR29, RR33, RR35, RR40, RR41, RR45</td>
</tr>
<tr>
<td>External</td>
<td>GreenCoat HIARC</td>
<td>C3</td>
<td>Ruv4</td>
<td>RR20, RR21, RR22, RR23, RR29, RR33, RR35, RR40, RR41, RR45</td>
</tr>
<tr>
<td>External</td>
<td>GreenCoat HIARC matt</td>
<td>C3</td>
<td>Ruv4</td>
<td>RR33, RR40, RR41</td>
</tr>
<tr>
<td>External</td>
<td>Polyester</td>
<td>C3</td>
<td>Ruv2-3</td>
<td>RR20, RR21, RR23, RR946</td>
</tr>
<tr>
<td>Internal</td>
<td>Polyester</td>
<td>C3</td>
<td>-</td>
<td>RR20</td>
</tr>
<tr>
<td>Internal</td>
<td>Foodsafe laminate *</td>
<td>C4</td>
<td>-</td>
<td>White</td>
</tr>
<tr>
<td>Internal</td>
<td>Stainless steel *</td>
<td>C4</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*) 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
PROFILE OPTIONS
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
Ruuikki-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
Ruuikki-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
SOUND INSULATION VALUES

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.

INSTRUCTIONS

ASSEMBLY INSTRUCTIONS

Assembly instructions document includes information about:

- Packing
- Transportation and unloading
- Storing
- Assembling

MAINTENANCE INSTRUCTIONS

Maintenance instructions document contains information about:

- Washing
- Painting
PRODUCT DESCRIPTIONS

Product description includes information about:

- Panel structure
- Structural dimensioning
- Panel packaging
- Windows and corner panels
- Panel fastening

FACEADE CLADDING INSTRUCTIONS

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

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
INTRUDER RESISTANCE CERTIFICATES

24 SEP, 2019
Certificate on Burglary Protection Class2-3 SPA F, S, E LIFE and 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