

RUUKKI SANDWICH PANELS FOR ENERGY- EFFICIENT BUILDINGS

PRODUCT CATALOGUE 2016

RUUKKI

Building lifetime efficiency

Reduce your building's energy cost up to 20%

We can help you to reduce heating energy costs with Ruukki's envelope solution – the most air tight building envelope solution on the market.

Highly airtight Ruukki energy panel envelope enables you to significantly reduce heating energy consumption. In addition, good air tightness helps in meeting the ever increasing energy efficiency requirements set by national building regulations.

We have such absolute faith in the low air leakage rate of our Ruukki energy panel system that we provide a special air tightness guarantee: if the guaranteed air leakage rate is not achieved, you get your money back. In addition to maximising energy savings, we also offer different solar wall systems for generating 100% renewable energy. These systems can be easily integrated with our air tight energy panel system.

Our way of working will help you choose the most cost efficient solutions and level of energy efficiency for your buildings' lifecycle easily and reliably.

Reducing environmental impact

Ruukki energy panel system reduces the CO₂ emissions caused by your building over its life time, too. Thanks to lower heating energy need the CO₂ emissions created by heating are reduced in the same ratio.

You can further reduce the environmental impact of your building by choosing Ruukki life panel, the most sustainable sandwich panel in our portfolio. Thanks to the exceptionally high recycled material content of its insulation material (over 70%), it provides up to 20% lower GWP (Global warming potential) compared to traditional mineral wool cored panels.

We have also combined the best features from both products for the ultimate sustainable solution: Ruukki life energy panel. By selecting this product you can be sure that you are maximizing the sustainability of your building's envelope. This also contributes in maximized credits in both **LEED** and **BREEAM** certification systems. Our special panels for cold storage guarantee high value of heat resistance. Very low thermal conductivity λ allows you to improve significantly thermal parameters of walls made with the use of these panels.

We believe you will find products that perfectly match your needs as to energy and environmental efficiency. Please join us in building lifetime efficiency for your construction projects!

For latest technical information, please visit www.ruukki.com/sandwichpanels.



Ruukki's sandwich panels – an adaptable solution for your project



Our sandwich panels are versatile prefabricated construction elements consisting of two colour-coated steel sheet layers with an inner insulation core. Insulation core can be either polyisocyanurate (PIR), polyurethane (PU) or mineral wool (MW).

The sandwich panels have a variety of applications, including facades, roofs, compartmenting structures, partition walls and ceilings. They can be used in industrial and commercial buildings, sports facilities, warehouses and power plants, as well as in construction for the food industry and for demanding cold room applications.

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Product features

- A wide range of profiling options ensures unique design.
- A variety of colours for interesting facade appearance.
- Low own weight and long spans.
- Excellent insulation parameters thanks to a good thermal conductivity factor.
- Reaction to fire as per DIN EN 13501-1: A2-s1,d0 with mineral wool core B-s1,d0, with X-PIR core and B-s2, d0 with E-PIR core.
- Excellent fire resistance and acoustics thanks to a non-combustible mineral wool core.
- Superior joint tightness thanks to factory-applied seals and properly profiled edges.
- Sandwich panels are available with a complete set of standard accessories and steel flashings.

Benefit in many ways by choosing Ruukki's sandwich panels



Complete package

Unlike many producers, Ruukki provides its customers with a complete sandwich panel package – from customized design to meet specific project needs, through selection of the right panel type, to choice of product features and specification of essential accessories. Our sandwich panel portfolio is supported by comprehensive services and installation.

Versatility

The excellent versatility of Ruukki's panels makes them a universal construction solution for a wide range of architectural applications. The choice of core thickness, long spans, various shapes, coatings and colours, as well as the potential for horizontal or vertical installation, gives designers a wealth of options. Our sandwich panel offer is complemented by a wide range of dedicated flashings and accessories.

Quick installation

When time becomes crucial to a construction project, Ruukki's sandwich panel system is an efficient solution ensuring quick and cost-saving execution. The tight seam structure guarantees high quality in vertical installation. The lightweight composition of Ruukki's panels results in cost savings for the foundation, frame and installation.

Fire resistance

Ruukki's sandwich panels offer excellent fire safety properties. Exceptional fire resistance and acoustic insulation are key features of the mineral wool core panels. For the most popular thickness of 100 mm of PIR core, we have achieved EI 30/EW 60 ratings, one of the best results for PIR panels in terms of fire safety on the European market.

Energy efficiency

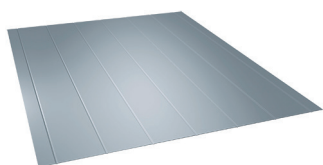
Ruukki offers a solution allowing buildings to be more energy efficient and environment friendly. Our sandwich panels display excellent insulation properties and can significantly reduce energy consumption in buildings. In a world of strict environmental requirements and emission limits, Ruukki constantly strives to work towards the sustainability of our business and the quality of products for our customers.

Strength and quality

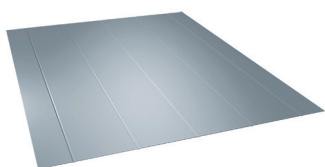
Ruukki's panels, thanks to their high quality core and cladding materials, and innovative glueing system, boast excellent durability, corrosion resistance, thermal insulation and mechanical properties. Our calculated strength tables allow the quick and easy selection of panels suitable for a particular building. With Ruukki panels, even dark colours can be used successfully. With our panels, customer buildings will benefit from longer life.

Available profilings

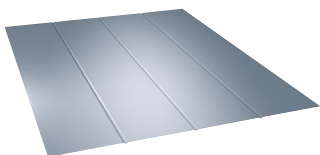
R150



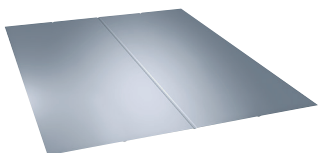
R200



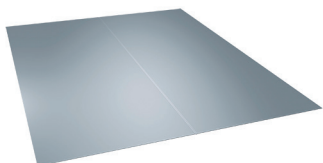
R 250, R275



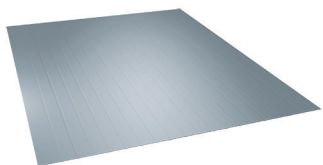
R 500, R 550



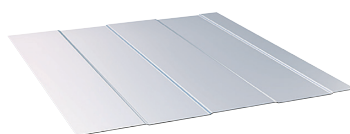
R600



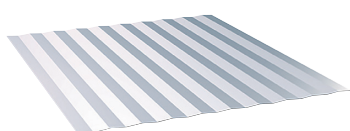
L50



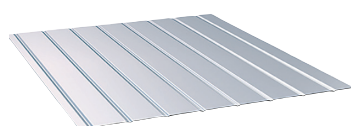
L Linear



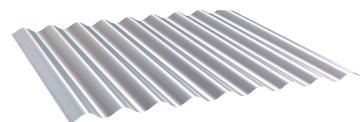
M Microprofiled



R Ribbed (28)



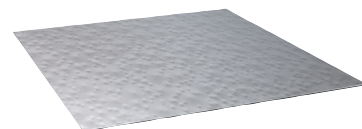
S Sinusoidal



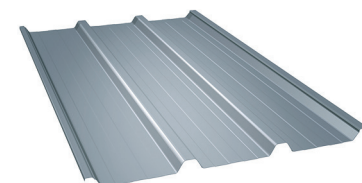
F Flat



E Embossed



T Trapezoidal



Coatings for sandwich panels

Ruukki Hiarc® matt

Matt surface coating recommended for normal exterior use. It is highly resistant against UV radiation and dirt pick-up. Ruukki Hiarc® matt is recommended for uses where modern distinguished appearance is required and excellent colour durability and dirt pick-up resistance are valued. Metallic colours are available for end uses where metallic appearance is required.

Ruukki Hiarc®

Coating recommended for normal exterior use. It is highly resistant against UV radiation and dirt pick-up. Ruukki Hiarc® is recommended for uses where excellent colour durability and dirt pick-up resistance are valued. Metallic colours are available for end uses where metallic appearance is required.

Polyester

Polyester coating is suited for use both in interiors and exteriors, through its properties are better suited for interior use. Polyester is recommended applications where high weather resistance is not necessary.

Food safe laminate

Food safe laminated surfaces for the food industry provide a ready-made solution for a variety of applications, particularly for processing and storing facilities. Food safe laminates have a very good resistance to forming and low-gloss smooth surface with high wear resistance. They are also easy to clean.

Ruukki Csafe coating

Ruukki Csafe coating is developed primarily for interior use, but can also be used on external faces. Coating has very good resistance against chemicals, scratching, dirt and corrosion – and is therefore excellent solution for agricultural construction.

Stainless steel

Some of our panels are also available with stainless steel facings. Stainless steel facings are suitable for even the most aggressive environment.

Our coatings have been tested against corrosion in accordance with EN standards. Based on the test results, we recommend following coating types & facings:

Ruukki Hiarc® matt	Corrosion classes C1 – C3
and Ruukki Hiarc®	Corrosion classes C1 – C3
Polyester	C1 – C4
Ruukki Csafe coating	C1 – C4
Foodsafe laminate	C1 – C5-M
Stainless steel	

RUUKKI

Ruukki sandwich panels

Technical information ▶▶▶

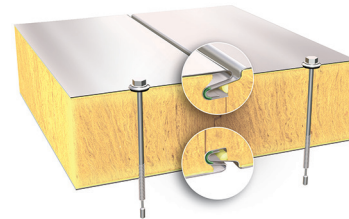
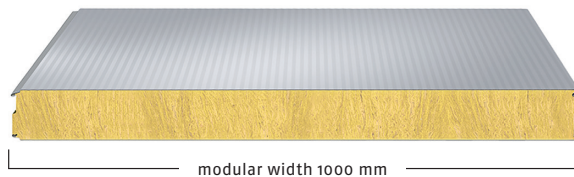
Market area: Nordic countries, Baltic countries and UK.

Ruukki® energy panel for external walls SPA E LIFE ENERGY

- With its raw materials' exceptionally high recycled content, this sustainable mineral wool panel minimises the use of raw materials and energy as well as minimises the carbon emissions during the construction phase.
- Ruukki life panel can be re-used and fully recycled. This panel provides high level of air tightness and thermal insulation. Thanks to its exceptionally high air tightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%.
- Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- It is the ultimate solution for facades with high requirements for energy efficiency, air tightness and sustainability.



- Ruukki energy panels are available with energy coating on external face for reduced thermal movements and lower cooling energy need.
- Energy panel system comes with air tightness guarantee by Ruukki. Properties are certified by VTT Technical Research Centre of Finland (VTT-C-8526-12).



Core thickness D mm	Width		Thickness of facings		Maximum length m	Weight kg/m ²	U design value W/m ² K	Reaction to fire	Specific acoustic insulation Rw dB
	Total mm	Modular mm	External mm	Internal mm					
150	1216	1200	0.6	0.5	13.5	19.5	0.25	A2-s1, d0	29
200						22.2	0.19		29
230						24.2	0.16		29

Fire resistance table for 'SPA E LIFE ENERGY' panel			
Thickness	150	200	230
Fire resistance	El 60 ¹	El 60 ¹	El 60 ¹

¹ Max. distance between supports 12m (horizontal assembly) and 4m (vertical assembly).

Profiling options	Linear L50	Microprofiled M	Ribbed R	Flat F
External	●	●	● R150, R200, R600	●
Internal	●	●	● R150, R200, R600	●

● available

Standard external colours – Energy



Standard external colours – Ruukki Hiarc®



RR40 also as Ruukki Hiarc® matt.

Standard internal colours – Polyester



Market area: Nordic countries, Baltic countries and UK.

Ruukki® energy panel for external walls

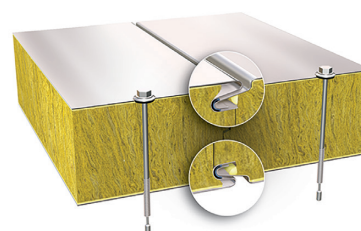
SPA E ENERGY

- With its non-combustible structural mineral wool core, this panel provides high level of air tightness as well as excellent fire safety and thermal insulation.
- Thanks to its exceptionally high air tightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%. Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- Energy panels are installed by trained and certified installers following special energy panel construction details.
- Energy panel delivery includes an energy simulation service, which provides an overall view of a building's total energy consumption, revealing the critical factors in maximising energy efficiency and the impact



an optimised building envelope structure has on a building's heating costs and energy efficiency.

- Energy panel system comes with air tightness guarantee by Ruukki. Properties are certified by VTT Technical Research Centre of Finland (VTT-C-8526-12).
- Ruukki energy panels are available with energy coating on external face for reduced thermal movements and lower cooling energy need.



Core thickness D mm	Width		Thickness of facings		Maximum length m	Weight kg/m ²	U design value W/m ² K	Reaction to fire	Specific acoustic insulation Rw dB
	Total mm	Modular mm	External mm	Internal mm					
150	1216	1200	0.6	0.5	13.5	23.6	0.26	A2-s1, d0	30
200						27.5	0.20		31
230						30.4	0.17		31

Fire resistance table for 'SPA E ENERGY' panel			
thickness	150	200	230
fire resistance	EI 60 ¹	EI 60 ¹	EI 60 ¹
	EI 90 ²	EI 90 ²	EI 90 ²
	EI 120 ²	EI 120 ²	EI 120 ²
	EI 180 ³	EI 180 ³	EI 180 ³

¹ Max. distance between supports 12 m (horizontal assembly) and 12 m (vertical assembly).

² Max. distance between supports 12 m (horizontal assembly) and 10.9 m (vertical assembly).

³ Max. distance between supports 4 m (both horizontal and vertical installation).

Profiling options	Linear L50	Microprofiled M	Ribbed R	Flat F
External	●	●	● R150, R200, R600	●

● available

Standard external colours – Energy



Standard external colours – Ruukki Hiarc®



Standard internal colours – Polyester



RR40 also as Ruukki Hiarc® matt.

Market area: Nordic countries, Baltic countries and UK.

Ruukki® energy panel for external walls

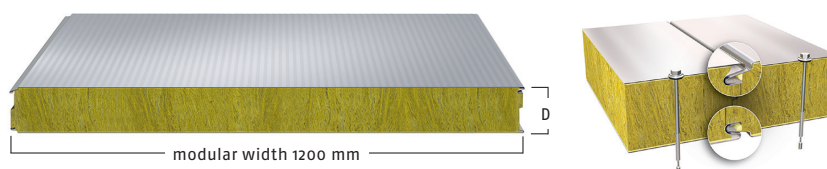
SPA F ENERGY

- With its non-combustible structural mineral wool core, this panel provides high level of air tightness and fire resistance.
- Thanks to its exceptionally high air tightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%. Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- Panels are available with new Ruukki energy coating for reduced cooling energy need and thermal movements in summer.
- It is the ultimate solution for facades with high requirements for energy efficiency, air tightness and fire resistance.
- Energy panels are installed by trained and certified installers following special energy panel construction details.
- Energy panel delivery includes an energy simulation service, which



provides an overall view of a building's total energy consumption, revealing the critical factors in maximising energy efficiency and the impact an optimised building envelope structure has on a building's heating costs and energy efficiency.

- Energy panel system comes with air tightness guarantee by Ruukki. Properties are certified by VTT Technical Research Centre of Finland (VTT-C-8526-12).
- Ruukki energy panels are available with energy coating on external face for reduced thermal movements and lower cooling energy need.



Core thickness D mm	Width		Thickness of facings		Maximum length m	Weight kg/m ²	U design value W/m ² K	Reaction to fire	Specific acoustic insulation Rw dB
	Total mm	Modular mm	External mm	Internal mm					
150	1216	1200	0.6	0.5	13.5	28.2	0.29	A2-s1, d0	31
200						33.5	0.22		
230						37.4	0.19		

Fire resistance table for 'SPA F ENERGY' panel			
Thickness	150	200	230
Fire resistance	EI 60 ¹	EI 60 ¹	EI 60 ¹
	EI 90 ²	EI 90 ²	EI 90 ²
	EI 120 ³	EI 120 ³	EI 120 ³
	EI 180 ⁴	EI 180 ⁵	EI 180 ⁵
		EI 240 ⁶	EI 240 ⁶

- ¹ Max. distance between supports 11.9 m (horizontal assembly) and 10 m (vertical assembly). ⁴ Max. distance between supports 8.5 m (horizontal assembly) and 4 m (vertical assembly).
² Max. distance between supports 11.7 m (horizontal assembly) and 10 m (vertical assembly). ⁵ Max. distance between supports 11.8 m (horizontal assembly) and 9 m (vertical assembly).
³ Max. distance between supports 10.3 m (horizontal assembly) and 10 m (vertical assembly). ⁶ Max. distance between supports 11.8 m (horizontal assembly) and 4 m (vertical assembly).

Profiling options	Linear L50	Microprofiled M	Ribbed R	Flat F
External	●	●	● R150, R200, R600	●
Internal	●	●	● R150, R200, R600	●

● available

Standard external colours – Energy



Standard external colours – Ruukki Hiarc®



Standard internal colours – Polyester



RR40 also as Ruukki Hiarc® matt.

Market area: Nordic countries, Baltic countries and UK.

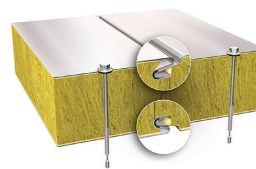
Ruukki® energy panel for external walls

SPA S ENERGY

- With its non-combustible structural mineral wool core, this panel provides high level of air tightness, fire resistance and strength.
- Thanks to its exceptionally high air tightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%. Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- Panels are available with new Ruukki energy coating for reduced cooling energy need and thermal movements in summer.
- It is the ultimate solution for facades with high requirements for energy efficiency, air tightness and strength.
- Energy panels are installed by trained and certified installers following special energy panel construction details.



- Energy panel delivery includes an energy simulation service, which provides an overall view of a building's total energy consumption, revealing the critical factors in maximising energy efficiency and the impact an optimised building envelope structure has on a building's heating costs and energy efficiency.
- Energy panel system comes with air tightness guarantee by Ruukki. Properties are certified by VTT Technical Research Centre of Finland (VTT-C-8526-12).
- Ruukki energy panels are available with energy coating on external face for reduced thermal movements and lower cooling energy need.



Core thickness D mm	Width		Thickness of facings		Maximum length m	Weight kg/m ²	U design value W/m ² K	Reaction to fire	Specific acoustic insulation Rw dB
	Total mm	Modular mm	External mm	Internal mm					
150	1216	1200	0.5	0.5	13.5	28.9	0.29	A2-s1, d0	31
200						34.5	0.22		
230						38.5	0.19		

Fire resistance table for 'SPA S ENERGY' panel			
thickness	150	200	230
fire resistance	EI 60 ¹	EI 60 ¹	EI 60 ¹
	EI 90 ²	EI 90 ²	EI 90 ²
	EI 120 ³	EI 120 ³	EI 120 ³
	EI 180 ⁴	EI 180 ⁵	EI 180 ⁵
		EI 240 ⁶	EI 240 ⁶

¹ Max. distance between supports 11.9 m (horizontal assembly) and 10 m (vertical assembly).

² Max. distance between supports 11.7 m (horizontal assembly) and 10 m (vertical assembly).

³ Max. distance between supports 10.3 m (horizontal assembly) and 10 m (vertical assembly).

⁴ Max. distance between supports 8.5 m (horizontal assembly) and 4 m (vertical assembly).

⁵ Max. distance between supports 11.8 m (horizontal assembly) and 9 m (vertical assembly).

⁶ Max. distance between supports 11.8 m (horizontal assembly) and 4 m (vertical assembly).

Profiling options	Linear L50	Microprofiled M	Ribbed R	Flat F
External	●	●	● R150, R200, R600	●
Internal	●	●	● R150, R200, R600	●

● available

Standard external colours – Energy



Standard external colours – Ruukki Hiarc®



RR40 also as Ruukki Hiarc® matt.

Standard internal colours – Polyester

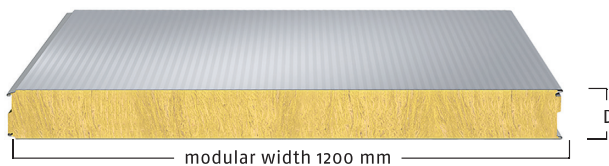


Market area: Nordic countries, Baltic countries and UK.

Sandwich panel for external walls

SPA E LIFE

- With its raw materials' exceptionally high recycled content, this sustainable mineral wool panel minimizes the use of raw materials and energy as well as minimizes the carbon emissions during the construction phase. Ruukki life panel can be re-used and fully recycled.
- It is an ideal solution for facades with high requirements for sustainability, fire resistance and energy efficiency.
- It is the ultimate solution for facades with high requirements for energy efficiency, air tightness and strength.



Core thickness D mm	Width		Thickness of facings		Maximum length m	Weight kg/m²	U design value W/m²K	Reaction to fire	Specific acoustic insulation Rw dB
	Total mm	Modular mm	External mm	Internal mm					
150	1216	1200	0.6	0.5	13.5	19.5	0.25	A2-s1, d0	29
200						22.2	0.19		29
230						24.2	0.16		29

Fire resistance table for 'SPA E LIFE' panel			
Thickness	150	200	230
Fire resistance	El 60 ¹	El 60 ¹	El 60 ¹

¹ Max. distance between supports 12 m (horizontal assembly) and 4 m (vertical assembly).

Profiling options	Linear L50	Microprofiled M	Ribbed R	Flat F
External	●	●	● R150, R200, R600	●
Internal	●	●	● R150, R200, R600	●

● available

Standard external colours – Ruukki Hiarc®



Standard internal colours – Polyester

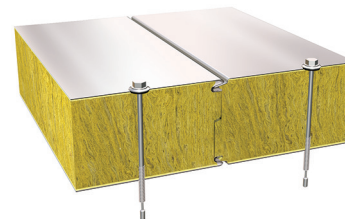
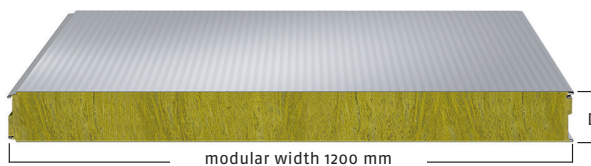
RR40 and RR41 also available as Ruukki Hiarc® matt.

Market area: Nordic countries, Baltic countries and UK.

Sandwich panel for external walls

SPA E

- With its non-combustible structural mineral wool core, this panel insulates noise well and provides excellent fire safety and thermal insulation.
- It is an ideal solution for facades with high requirements for energy efficiency.



Core thickness D mm	Width		Thickness of facings		Maximum length m	Weight kg/m²	U design value W/m²K	Reaction to fire	Specific acoustic insulation Rw dB
	Total mm	Modular mm	External mm	Internal mm					
100	1216	1200	0.6	0.5	13.5	19	0.40	A2-s1, d0	29
125						21.3	0.31		30
150						23.6	0.26		30
175						25.5	0.22		31
200						27.5	0.20		31
230						30.4	0.17		31

Fire resistance table for 'SPA E'						
Thickness	100	125	150	175	200	230
Fire resistance	EI 60 ²	EI 60 ³	EI 60 ¹	EI 60 ¹	EI 60 ¹	EI 60 ¹
	EI 90 ⁴	EI 90 ⁵	EI 90 ⁶	EI 90 ⁶	EI 90 ⁶	EI 90 ⁶
		EI 120 ⁵	EI 120 ⁶	EI 120 ⁶	EI 120 ⁶	EI 120 ⁶

¹ Max. distance between supports 12 m (horizontal assembly) and 12 m (vertical assembly).

² Max. distance between supports 9.3 m (horizontal assembly) and 11.9 m (vertical assembly).

³ Max. distance between supports 11.1 m (horizontal assembly) and 12 m (vertical assembly).

⁴ Max. distance between supports 4 m (horizontal assembly) and 10.5 m (vertical assembly).

⁵ Max. distance between supports 4 m (horizontal assembly) and 10.9 m (vertical assembly).

⁶ Max. distance between supports 12 m (horizontal assembly) and 10.9 m (vertical assembly).

Profiling options	Linear L50	Microprofiled M	Ribbed R	Flat F
External	●	●	● R150, R200, R600	●
Internal	●	●	● R150, R200, R600	●

● available

Standard external colour – Ruukki Hiarc®



Standard internal colour – Polyester



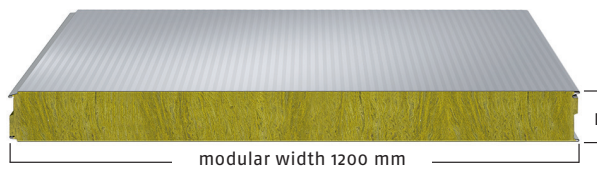
RR40 and RR41 also available as Ruukki Hiarc® matt.

Market area: Nordic countries, Baltic countries and UK.

Sandwich panel for internal and external fire walls

SPA F

- With its non-combustible structural mineral wool core, this panel insulates noise well and provides excellent fire safety.
- It is an ideal solution for both facades and internal partition walls with high requirements for fire resistance.



Core thickness D mm	Width		Thickness of facings		Maximum length m	Weight kg/m²	U design value W/m²K	Reaction to fire	Specific acoustic insulation Rw dB
	Total mm	Modular mm	External mm	Internal mm					
80	1216	1200	0.6	0.5	13.5	19.7	0.54	A2-s1, d0	30
100						22.3	0.44		30
125						25.1	0.35		29
150						28.2	0.29		31
175						30.7	0.25		31
200						33.5	0.22		31
230						37.4	0.19		31

Fire resistance table for 'SPA F'							
Thickness	80	100	125	150	175	200	230
Fire resistance	EI 60 ¹	EI 60 ²	EI 60 ²	EI 60 ²	EI 60 ²	EI 60 ²	EI 60 ²
		EI 90 ³	EI 90 ⁴	EI 90 ⁴	EI 90 ⁴	EI 90 ⁴	EI 90 ⁴
		EI 120 ⁵	EI 120 ⁶	EI 120 ⁶	EI 120 ⁶	EI 120 ⁶	EI 120 ⁶
			EI 180 ⁷	EI 180 ⁷	EI 180 ⁸	EI 180 ⁸	EI 180 ⁸
					EI 240 ⁹	EI 240 ⁹	EI 240 ⁹

¹ Max. distance between supports 9.3 m (horizontal assembly) and 4 m (vertical assembly).

² Max. distance between supports 11.9 m (horizontal assembly) and 10 m (vertical assembly).

³ Max. distance between supports 8.9 m (horizontal assembly) and 11.3 m (vertical assembly).

⁴ Max. distance between supports 11.7 m (horizontal assembly) and 10 m (vertical assembly).

⁵ Max. distance between supports 7.4 m (horizontal assembly) and 11.2 m (vertical assembly).

⁶ Max. distance between supports 10.3 m (horizontal assembly) and 10 m (vertical assembly).

⁷ Max. distance between supports 8.5 m (horizontal assembly) and 4 m (vertical assembly).

⁸ Max. distance between supports 11.8 m (horizontal assembly) and 9 m (vertical assembly).

⁹ Max. distance between supports 11.8 m (horizontal assembly) and 4 m (vertical assembly).

Profiling options	Linear L50	Microprofiled M	Ribbed R	Flat F
External	●	●	● R150, R200, R600	●
Internal	●	●	● R150, R200, R600	●

● available

Standard external colour – Ruukki Hiarc®



Standard internal colour – Polyester



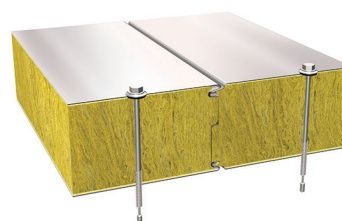
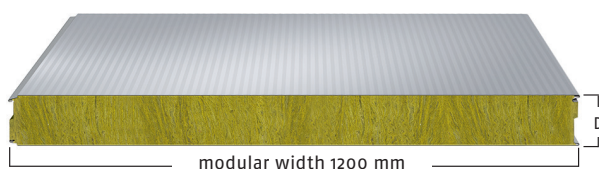
RR40 and RR41 also available as Ruukki Hiarc® matt.

Market area: Nordic countries, Baltic countries and UK.

Sandwich panel for external walls and ceilings

SPA S

- With its non-combustible structural mineral wool core, this panel insulates noise well and provides excellent strength and fire safety.
- It is an ideal solution for both facades and ceilings with high requirements for strength and fire resistance.



Core thickness D mm	Width		Thickness of facings		Maximum length m	Weight kg/m ²	U design value W/m ² K	Reaction to fire	Specific acoustic insulation Rw dB
	Total mm	Modular mm	External mm	Internal mm					
80	1216	1200	0.6	0.5	13.5	20.1	0.54	A2-s1, d0	30
100						22.3	0.44		30
125						25.7	0.35		31
150						28.9	0.29		31
175						31.6	0.25		31
200						34.5	0.22		31
230						38.5	0.19		31

Fire resistance table for 'SPA S'							
thickness	80	100	125	150	175	200	230
fire resistance	EI 60 ¹	EI 60 ²	EI 60 ²	EI 60 ²	EI 60 ²	EI 60 ²	EI 60 ²
		EI 90 ³	EI 90 ⁴	EI 90 ⁴	EI 90 ⁴	EI 90 ⁴	EI 90 ⁴
		EI 120 ⁵	EI 120 ⁶	EI 120 ⁶	EI 120 ⁶	EI 120 ⁶	EI 120 ⁶
			EI 180 ⁷	EI 180 ⁷	EI 180 ⁸	EI 180 ⁸	EI 180 ⁸
					EI 240 ⁹	EI 240 ⁹	EI 240 ⁹

¹ Max. distance between supports 9.3 m (horizontal assembly) and 4 m (vertical assembly).

² Max. distance between supports 11.9 m (horizontal assembly) and 10 m (vertical assembly).

³ Max. distance between supports 8.9 m (horizontal assembly) and 11.3 m (vertical assembly).

⁴ Max. distance between supports 11.7 m (horizontal assembly) and 10 m (vertical assembly).

⁵ Max. distance between supports 7.4 m (horizontal assembly) and 11.2 m (vertical assembly).

⁶ Max. distance between supports 10.3 m (horizontal assembly) and 10 m (vertical assembly).

⁷ Max. distance between supports 8.5 m (horizontal assembly) and 4 m (vertical assembly).

⁸ Max. distance between supports 11.8 m (horizontal assembly) and 9 m (vertical assembly).

⁹ Max. distance between supports 11.8 m (horizontal assembly) and 4 m (vertical assembly).

SPA S panels have also fire resistance value of EI 120 as a ceiling construction starting from 100 mm thickness; distance between supports to be calculated case by case.

Profiling options	Linear L50	Microprofiled M	Ribbed R	Flat F
External	●	●	● R150, R200, R600	●
Internal	●	●	● R150, R200, R600	●

● available

Standard external colour – Ruukki Hiarc®



Standard internal colour – Polyester



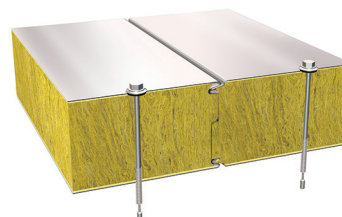
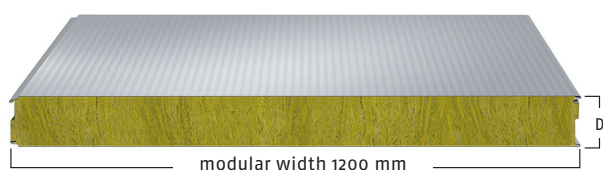
RR40 and RR41 also available as Ruukki Hiarc® matt.

Market area: Nordic countries, Baltic countries and UK.

Sandwich panel for internal walls

SPA I

- With its non-combustible structural mineral wool core, this panel insulates noise well and provides excellent fire safety making it a quick and cost efficient solution for building fire safe internal partition walls.
- It is an ideal solution for building fire safe internal partition walls quickly and cost efficiently.



Core thickness D mm	Width		Thickness of facings		Maximum length m	Weight kg/m²	U design value W/m²K	Reaction to fire	Specific acoustic insulation Rw dB
	Total mm	Modular mm	External mm	Internal mm					
100	1216	1200	0.5	0.5	13.5	19	0.40	A2-s1, d0	29
125						21.3	0.31		30
150						23.6	0.26		30

Fire resistance table for 'SPA I' panel			
Thickness	100	125	150
Fire resistance	EI 60 ²	EI 60 ³	EI 60 ¹
	EI 90 ⁴	EI 90 ⁵	EI 90 ⁶
		EI 120 ⁵	EI 120 ⁶

¹ Max. distance between supports 12 m (horizontal assembly) and 12 m (vertical assembly).

² Max. distance between supports 9.3 m (horizontal assembly) and 11.9 m (vertical assembly).

³ Max. distance between supports 11.1 m (horizontal assembly) and 12 m (vertical assembly).

⁴ Max. distance between supports 4 m (horizontal assembly) and 10.5 m (vertical assembly).

⁵ Max. distance between supports 4 m (horizontal assembly) and 10.9 m (vertical assembly).

⁶ Max. distance between supports 12 m (horizontal assembly) and 10.9 m (vertical assembly).

Profiling options	Linear L50	Microprofiled M	Ribbed R	Flat F
External	●	●	● R150, R200, R600	●
Internal	●	●	● R150, R200, R600	●

● available

Standard internal colour – Polyester



Market area: Central Eastern Europe, Balkans and Baltic countries.

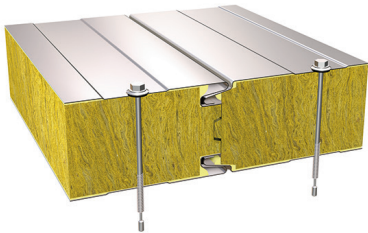
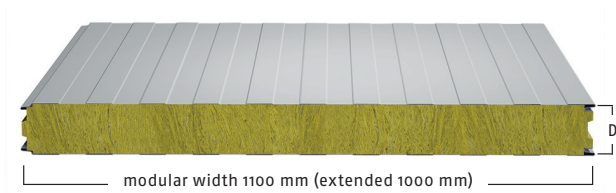
Ruukki® energy panel for external walls
SPB WE ENERGY

- With its non-combustible structural mineral wool core, this panel provides high level of air tightness as well as excellent fire safety and thermal insulation.
- Thanks to its exceptionally high air tightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%. Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- It is the ultimate solution for facades with high requirements for energy efficiency and air tightness.
- Energy panels are installed by trained and certified installers following special energy panel construction details.
- Energy panel delivery includes an energy simulation



service, which provides an overall view of a building's total energy consumption, revealing the critical factors in maximising energy efficiency and the impact an optimised building envelope structure has on a building's heating costs and energy efficiency.

- Energy panel system comes with air tightness guarantee by Ruukki.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m²	U value W/m²K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
160	1018 or 1118	1000 or 1100	0.6	0.5	12.0	23.6	0.24	A2-s1,d0	≥ 29
180						25.4	0.22		
200						27.2	0.20		

Thickness mm	160	180	200
Fire resistance	EI 60 ¹ , EI 120 ²	EI 60 ¹ , EI 120 ²	EI 60 ¹ , EI 120 ²

¹ Max. distance between supports 11.1 m (horizontal assembly) and 10.4 (vertical assembly).

² Max. distance between supports 10.5 m (horizontal assembly) and 4.0 m (vertical assembly).

Fire resistance of SPB160WE panel with ENERGY gasket for ceilings is EI120 when distance between supports cc 3.0 m and stitched joint from the outside.

Profiling options	L Linear	M Microprofiled	R Ribbed	F Flat
External	●	●	● R28*, R250*, R275, R500*, R550	●
Internal	●			●

● available

* For panel modular width 1000 mm only

Standard external colours – Polyester	1015	5005	7015	7035**	9002	9006**	9007**	9010
Standard internal colours – Polyester	9002	9010						

Other colours acc. to RAL available only on special order, following additional arrangements.

** Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Balkans and Baltic countries.

Ruukki® energy panel for external walls

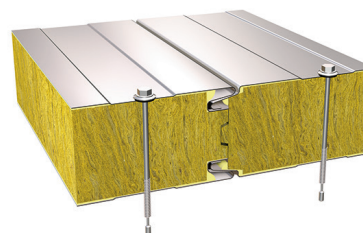
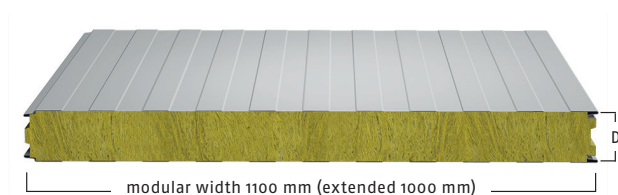
SPB WEE ENERGY

- With its non-combustible structural mineral wool core, this panel provides high level of air tightness as well as excellent fire safety and thermal insulation.
- Thanks to its exceptionally high air tightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%. Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- It is the ultimate solution for facades with high requirements for energy efficiency and air tightness.
- Energy panels are installed by trained and certified installers following special energy panel construction details.
- Energy panel delivery includes an energy simulation



service, which provides an overall view of a building's total energy consumption, revealing the critical factors in maximising energy efficiency and the impact an optimised building envelope structure has on a building's heating costs and energy efficiency.

- Energy panel system comes with air tightness guarantee by Ruukki.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m²	U value W/m²K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
160	1018 or 1118	1000 or 1100	0.6	0.5	12.0	20.4	0.23	A2-s1,d0	≥ 29
180						21.8	0.21		
200						23.2	0.19		

Thickness mm	160	180	200
Fire resistance	EI 30 ¹ , EI60 ¹	EI 30 ¹ , EI60 ¹	EI 30 ¹ , EI60 ¹

¹ Max. distance between supports 12.0 m (horizontal assembly) and 4.0 m (vertical assembly).

Fire resistance of SPB160WE panel with ENERGY gasket for ceilings is EI120 when distance between supports cc 3.0 m and stitched joint from the outside.

Profiling options	L Linear	M Microprofiled	R Ribbed	F Flat
External	●	●	● R28*, R250*, R275, R500*, R550	●
Internal	●			●

● available

* For panel modular width 1000 mm only

Standard external colours – Polyester	1015	5005	7015	7035**	9002	9006**	9007**	9010
Standard internal colours – Polyester	9002	9010						

Other colours acc. to RAL available only on special order, following additional arrangements.

** Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Balkans and Baltic countries.

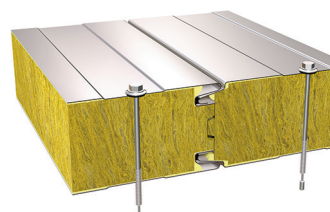
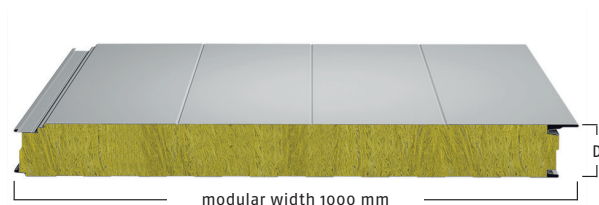
Ruukki® energy panel for external walls SPB W ENERGY

- With its non-combustible structural mineral wool core, this panel provides high level of air tightness as well as excellent fire safety and thermal insulation.
- Thanks to its exceptionally high air tightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%. Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- It is the ultimate solution for facades with high requirements for energy efficiency and air tightness.
- Energy panels are installed by trained and certified installers following special energy panel construction details.
- Energy panel delivery includes an energy simulation service, which provides an overall view of a building's



total energy consumption, revealing the critical factors in maximising energy efficiency and the impact an optimised building envelope structure has on a building's heating costs and energy efficiency.

- Energy panel system comes with air tightness guarantee by Ruukki.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
160	1018 or 1118	1000 or 1100	0.6	0.5	12.0	27.5	0.26	A2-s1,d0	≥32
180						29.8	0.23		
200						32.2	0.21		

Thickness mm	160	180	200
Fire resistance	EI 60 ⁵ , EI 120 ³ , EI 180 ⁴	EI 60 ⁵ , EI 120 ⁵ , EI 180 ¹ , EI 240 ²	EI 60 ⁵ , EI 120 ⁵ , EI 180 ¹ , EI 240 ²

¹ Max. distance between supports 12.0 m (horizontal assembly) and 4.0 m (vertical assembly).

² Max. distance between supports 11.7 m (horizontal assembly) and 4.0 m (vertical assembly).

³ Max. distance between supports 8.1 m (horizontal assembly) and 9.3 m (vertical assembly).

⁴ Max. distance between supports 7.4 m (horizontal assembly) and 4.0 m (vertical assembly).

⁵ Max. distance between supports 12.0 m (horizontal assembly) and 9.3 m (vertical assembly).

Fire resistance of SPB160W panel with ENERGY gasket for ceilings is EI120 when distance between supports cc 3.0 m and stitched joint from the outside.

Profiling options	L Linear	M Microprofiled	R Ribbed	F Flat
External	●	●	● R28*, R250*, R275, R500*, R550	●
Internal	●			●

● available

* For panel modular width 1000 mm only

Standard external colours – Polyester	1015	5005	7015	7035**	9002	9006**	9007**	9010
Standard internal colours – Polyester	9002	9010						

Other colours acc. to RAL available only on special order, following additional arrangements.

** Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Balkans and Baltic countries.

Ruukki® energy panel for external walls

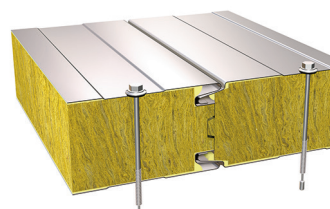
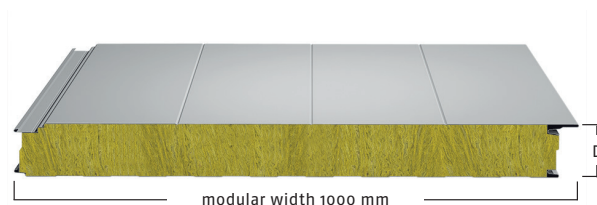
SPB WS ENERGY

- With its non-combustible structural mineral wool core, this panel provides high level of air tightness as well as excellent fire safety and thermal insulation.
- Thanks to its exceptionally high air tightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%. Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- It is the ultimate solution for facades with high requirements for energy efficiency and air tightness.
- Energy panels are installed by trained and certified installers following special energy panel construction details.
- Energy panel delivery includes an energy simulation service, which provides an overall view of a building's



total energy consumption, revealing the critical factors in maximising energy efficiency and the impact an optimised building envelope structure has on a building's heating costs and energy efficiency.

- Energy panel system comes with air tightness guarantee by Ruukki.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
160	1018 or 1118	1000 or 1100	0.6	0.5	12.0	28.3	0.27	A2-s1,d0	≥32
180						30.7	0.24		
200						33.2	0.22		

Thickness mm	160	180	200
Fire resistance	EI 60 ⁵ , EI 120 ³ , EI 180 ⁴	EI 60 ⁵ , EI 120 ⁵ , EI 180 ¹ , EI 240 ²	EI 60 ⁵ , EI 120 ⁵ , EI 180 ¹ , EI 240 ²

¹ Max. distance between supports 12.0 m (horizontal assembly) and 4.0 m (vertical assembly).

² Max. distance between supports 11.7 m (horizontal assembly) and 4.0 m (vertical assembly).

³ Max. distance between supports 8.1 m (horizontal assembly) and 9.3 m (vertical assembly).

⁴ Max. distance between supports 7.4 m (horizontal assembly) and 4.0 m (vertical assembly).

⁵ Max. distance between supports 12.0 m (horizontal assembly) and 9.3 m (vertical assembly).

Fire resistance of SPB160W panel with ENERGY gasket for ceilings is EI120 when distance between supports cc 3.0 m and stitched joint from the outside.

Profiling options	L Linear	M Microprofiled	R Ribbed	F Flat
External	●	●	● R28*, R250*, R275, R500*, R550	●
Internal	●			●

● available

* For panel modular width 1000 mm only

Standard external colours – Polyester	1015	5005	7015	7035**	9002	9006**	9007**	9010
Standard internal colours – Polyester	9002	9010						

Other colours acc. to RAL available only on special order, following additional arrangements.

** Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Balkans and Baltic countries.

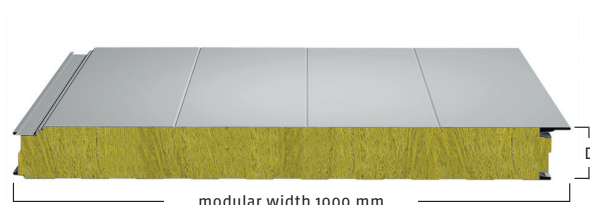
Ruukki® energy panel for external walls SP2D WE ENERGY

- With its non-combustible structural mineral wool core and concealed fixing joint design, this panel insulates noise well and provides excellent fire safety and thermal insulation.
- Thanks to concealed fixing method this panel enables façade design with considerable less joint flashings compared to traditionally fixed panels.
- It is an ideal solution for facades with high requirements for energy efficiency and visual appearance.
- Energy panels are installed by trained and certified installers following special energy panel construction details.
- Energy panel delivery includes an energy simulation service, which provides an overall view of a building's total energy consumption, revealing the critical



factors in maximising energy efficiency and the impact an optimised building envelope structure has on a building's heating costs and energy efficiency.

- Energy panel system comes with air tightness guarantee by Ruukki.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m²	U value W/m²K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
160	1054	1000	0.6	0.5	12.0	23.9	0.25	A2-s1,d0	≥ 29
180						25.8	0.22		
200						27.6	0.20		

Thickness mm		160	180	200
Fire resistance	From inside	El 30 ¹ , El 60 ³ , El 120 ³	El 30 ¹ , El 60 ³ , El 120 ³	El 30 ¹ , El 60 ³ , El 120 ³
	From outside	El 90 ² , El 120 ⁴ , El 240 ⁴	El 90 ² , El 120 ⁴ , El 240 ⁴	El 90 ² , El 120 ⁴ , El 240 ⁴

¹ Max. distance between supports 4.0 m (horizontal assembly) and 11.9 m (vertical assembly).

² Max. distance between supports 4.0 m (horizontal assembly) and 11.6 m (vertical assembly).

³ Max. distance between supports 4.0 m (horizontal assembly) and 9.8 m (vertical assembly).

⁴ Max. distance between supports 4.0 m (horizontal assembly) and 9.5 m (vertical assembly).

Profiling options	L Linear	M Microprofiled	R Ribbed	F Flat
External	●	●	● R28, R250, R500	
Internal	●			●

● available

Standard external colours – Polyester	1015	5005	7015	7035*	9002	9006*	9007	9010
Standard internal colours – Polyester	9002	9010						

Other colours acc. to RAL available only on special order, following additional arrangements.

* Colours are also available as standard with HIARC coating.

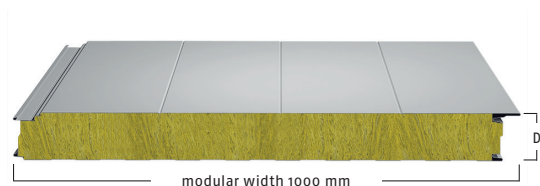
Market area: Central Eastern Europe, Balkans and Baltic countries.

Ruukki® energy panel for external walls SP2D W ENERGY

- With its non-combustible structural mineral wool core and concealed fixing joint design, this panel insulates noise well and provides excellent fire resistance and thermal insulation as well as high level of airtightness.
- Thanks to concealed fixing method this panel enables façade design with considerable less joint flashings compared to traditionally fixed panels.
- Thanks to its exceptionally high air tightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%. Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- It is the ultimate solution for facades with high requirements for air tightness and visual appearance.



- Energy panels are installed by trained and certified installers following special energy panel construction details.
- Energy panel delivery includes an energy simulation service, which provides an overall view of a building's total energy consumption, revealing the critical factors in maximising energy efficiency and the impact an optimised building envelope structure has on a building's heating costs and energy efficiency.
- Energy panel system comes with air tightness guarantee by Ruukki.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
180	1054	1000	0.6	0.5	12.0	30.2	0.24	A2-s1,d0	≥32
200						32.5	0.21		

Thickness mm		180	200
Fire resistance	From inside	EI 60 ¹ , EI 120 ²	EI 60 ¹ , EI 120 ²
	From outside	EI 60 ¹ , EI 90 ³ , EI 120 ³ , EI 240 ⁴	EI 60 ¹ , EI 90 ³ , EI 120 ³ , EI 240 ⁴

¹ Max. distance between supports 11.1 m (horizontal assembly) and 12.0 m (vertical assembly).

² Max. distance between supports 4.0 m (horizontal assembly) and 9.8 m (vertical assembly).

³ Max. distance between supports 4.0 m (horizontal assembly) and 12.0 m (vertical assembly).

⁴ Max. distance between supports 4.0 m (horizontal assembly) and 9.5 m (vertical assembly).

Profiling options	L Linear	M Microprofiled	R Ribbed	F Flat
External	●	●	● R28, R250, R500	
Internal	●			●

● available

Standard external colours – Polyester	1015	5005	7015	7035*	9002	9006*	9007	9010
Standard internal colours – Polyester	9002	9010						

Other colours acc. to RAL available only on special order, following additional arrangements.

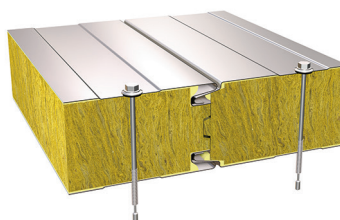
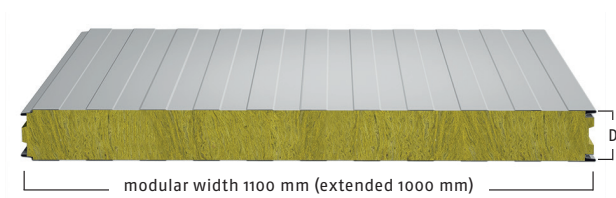
* Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Scandinavia, Balkans and Baltic countries.

Sandwich panel for external walls

SPB WE

- With its non-combustible structural mineral wool core, this panel insulates noise well and provides excellent fire safety and thermal insulation.
- It is an ideal solution for facades with high requirements for energy efficiency.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
80	1018 or 1118	1000 or 1100	0.6	0.5	12.0	16.3	0.48	A2-s1,d0	≥ 29
100						18.1	0.39		
120						19.9	0.32		
140						21.7	0.28		
160						23.6	0.24		
180						25.4	0.22		
200						27.2	0.20		

Thickness mm	80	100	120	140	160	180	200
Fire resistance	EI 15 ¹ , EI 30 ²	EI 60 ³ , EI 120 ⁴	EI 60 ³ , EI 120 ⁴	EI 60 ³ , EI 120 ⁴	EI 60 ³ , EI 120 ⁴	EI 60 ³ , EI 120 ⁴	EI 60 ³ , EI 120 ⁴

¹ Max. distance between supports 12.0 m (horizontal assembly) and 4.0 m (vertical assembly).

² Max. distance between supports 10.7 m (horizontal assembly) and 4.0 m (vertical assembly).

³ Max. distance between supports 11.1 m (horizontal assembly) and 10.4 m (vertical assembly).

⁴ Max. distance between supports 10.5 m (horizontal assembly) and 4.0 m (vertical assembly).

Fire resistance of SPB100WE panel for ceilings is EI120 when distance between supports cc 3.5 m and EI60 when distance between the supports cc 3.9 m (stitched joint from the outside).

Profiling options	L Linear	M Microprofiled	R Ribbed	F Flat
External	●	●	● R28*, R250*, R275, R500*, R550	●
Internal	●			●

● available

* For panel modular width 1000 mm only

Standard external colours – Polyester	1015	5005	7015	7035**	9002	9006**	9007**	9010
Standard internal colours – Polyester	9002	9010						

Other colours acc. to RAL available only on special order, following additional arrangements.

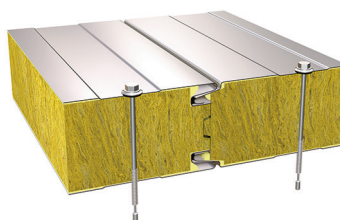
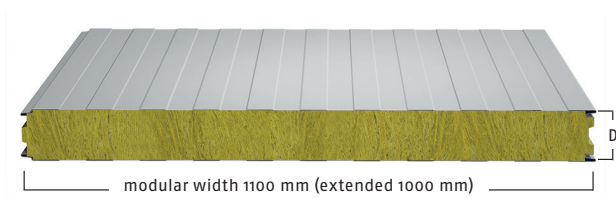
** Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Scandinavia, Balkans and Baltic countries.

Sandwich panel for external walls

SPB WEE

- With its non-combustible structural mineral wool core, this panel insulates noise well and provides excellent fire safety and thermal insulation.
- It is an ideal solution for facades with high requirements for energy efficiency.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m²	U value W/m²K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
160	1018 or 1118	1000 or 1100	0.6	0.5	12.0	20.4	0.23	A2-s1,d0	≥ 29
180						21.8	0.21		
200						23.2	0.19		

Thickness mm	80	100	120	140	160	180	200
Fire resistance	EI 30 ¹ , EI60 ¹	EI 30 ¹ , EI60 ¹	EI 30 ¹ , EI 60 ¹	EI 30 ¹ , EI 60 ¹	EI 30 ¹ , EI 60 ¹	EI 30 ¹ , EI 60 ¹	EI 30 ¹ , EI 60 ¹

¹ Max. distance between supports 12.0 m (horizontal assembly) and 4.0 m (vertical assembly).

Fire resistance of SPB100WE panel for ceilings is EI120 when distance between supports cc 3.5 m and EI60 when distance between the supports cc 3.9 m (stitched joint from the outside).

Profiling options	L Linear	M Microprofiled	R Ribbed	F Flat
External	●	●	● R28*, R250*, R275, R500*, R550	●
Internal	●			●

● available

* For panel modular width 1000 mm only

Standard external colours – Polyester	1015	5005	7015	7035**	9002	9006**	9007**	9010
Standard internal colours – Polyester	9002	9010						

Other colours acc. to RAL available only on special order, following additional arrangements.

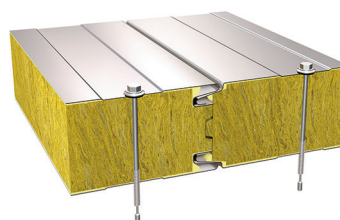
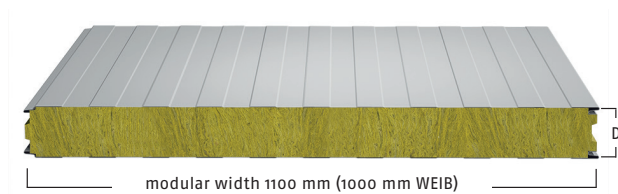
** Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Balkans and Baltic countries.

Sandwich panel for internal walls

SPB WEI

- With its non-combustible structural mineral wool core, this panel insulates noise well and provides excellent fire safety making it a quick and cost efficient solution for building fire safe internal partition walls.
- It is an ideal solution for building fire safe internal partition walls quickly and cost efficiently.



Core thickness D mm	Width		Thickness of facings		Maximum length m	Weight kg/m²	U design value W/m²K	Reaction to fire	Specific acoustic insulation Rw dB
	Total mm	Modular mm	External mm	Internal mm					
80	1118 or 1018	1100 or 1000	0.5	0.5	8.0	15.9	0.47	A2-s1, d0	29
100					12.0	17.7	0.38		
140					12.0	21.4	0.27		

Thickness mm	80	100	120
Fire resistance	EI 15 ¹ , EI 30 ²	EI 60 ³ , EI 120 ⁴	EI 60 ³ , EI 120 ⁴

¹ Max. distance between supports 12.0 m (horizontal assembly) and 4.0 m (vertical assembly).

² Max. distance between supports 10.7 m (horizontal assembly) and 4.0 m (vertical assembly).

³ Max. distance between supports 11.1 m (horizontal assembly) and 4.0 m (vertical assembly) or 4.0m (horizontal assembly) and 10,4 (vertical assembly).

⁴ Max. distance between supports 10.5 m (horizontal assembly) and 4.0 m (vertical assembly).

Profiling options	Linear L
External	●
Internal	●

● available

Standard internal colours – Polyester

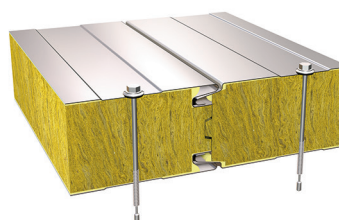
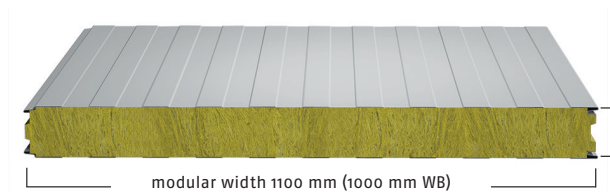


Market area: Central Eastern Europe, Balkans and Baltic countries.

Sandwich panel for external walls

SPB W

- With its non-combustible structural mineral wool core, this panel insulates noise well and provides excellent fire safety.
- It is an ideal solution for facades with high requirements for fire resistance.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
80	1018 or 1118	1000 or 1100	0.6	0.5	12.0	18.2	0.51	A2-s1,d0	≥32
100						20.6	0.41		
120						22.9	0.35		
140						25.2	0.30		
160						27.5	0.26		
180						29.8	0.23		
200						32.2	0.21		

Thickness mm	80	100	120	140	160	180	200
Fire resistance	EI 30 ¹ , EI 60 ⁴	EI 60 ³ , EI 120 ⁵	EI 60 ⁸ , EI 120 ⁶ , EI 180 ⁷	EI 60 ⁸ , EI 120 ⁶ , EI 180 ⁷	EI 60 ⁸ , EI 120 ⁶ , EI 180 ⁷	EI 60 ⁸ , EI 120 ⁸ , EI 180 ¹ , EI 240 ²	EI 60 ⁸ , EI 120 ⁸ , EI 180 ¹ , EI 240 ²

¹ Max. distance between supports 12.0 m (horizontal assembly) and 4.0 m (vertical assembly).

² Max. distance between supports 11.7 m (horizontal assembly) and 4.0 m (vertical assembly).

³ Max. distance between supports 11.1 m (horizontal assembly) and 4.0 m (vertical assembly).

⁴ Max. distance between supports 10.7 m (horizontal assembly) and 4.0 m (vertical assembly).

⁵ Max. distance between supports 10.5 m (horizontal assembly) and 9.3 m (vertical assembly).

⁶ Max. distance between supports 8.1 m (horizontal assembly) and 9.3 m (vertical assembly).

⁷ Max. distance between supports 7.4 m (horizontal assembly) and 4.0 m (vertical assembly).

⁸ Max. distance between supports 12.0 m (horizontal assembly) and 9.3 m (vertical assembly).

Fire resistance of SPB100W panel for ceilings is EI120 when distance between supports cc 3.5 m and EI60 when distance between the supports cc 3.9 m (stitched joint from the outside).

Profiling options	L Linear	M Microprofiled	R Ribbed	F Flat
External	●	●	● R28*, R250*, R275, R500*, R550	●
Internal	●			●

● available

* For panel modular width 1000 mm only

Standard external colours – Polyester	1015	5005	7015	7035**	9002	9006**	9007**	9010
Standard internal colours – Polyester	9002	9010						

Other colours acc. to RAL available only on special order, following additional arrangements.

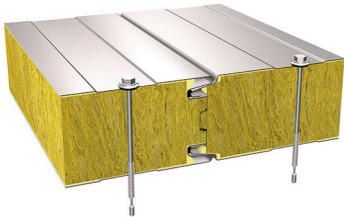
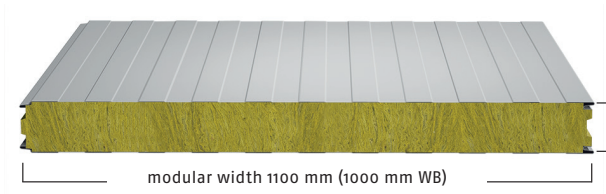
** Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Balkans and Baltic countries.

Sandwich panel for external walls

SPB WS

- With its non-combustible structural mineral wool core, this panel insulates noise well and provides excellent fire safety.
- It is an ideal solution for facades with high requirements for fire resistance.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
100	1018 or 1118	1000 or 1100	0.6	0.5	12.0	21.0	0.44	A2-s1,d0	≥32
120						23.5	0.37		
140						25.9	0.31		
160						28.3	0.27		
180						30.7	0.24		
200						33.2	0.22		

Thickness mm	100	120	140	160	180	200
Fire resistance	EI 60 ³ , EI 120 ⁴	EI 60 ⁷ , EI 120 ⁵ , EI 180 ⁶	EI 60 ⁸ , EI 120 ⁵ , EI 180 ⁶	EI 60 ⁷ , EI 120 ⁵ , EI 180 ⁶	EI 60 ⁷ , EI 120 ⁷ , EI 180 ¹ , EI 240 ²	EI 60 ⁷ , EI 120 ⁷ , EI 180 ¹ , EI 240 ²

- ¹ Max. distance between supports 12.0 m (horizontal assembly) and 4.0 m (vertical assembly).
² Max. distance between supports 11.7 m (horizontal assembly) and 4.0 m (vertical assembly).
³ Max. distance between supports 11.1 m (horizontal assembly) and 4.0 m (vertical assembly).
⁴ Max. distance between supports 10.5 m (horizontal assembly) and 9.3 m (vertical assembly).
⁵ Max. distance between supports 8.1 m (horizontal assembly) and 9.3 m (vertical assembly).
⁶ Max. distance between supports 7.4 m (horizontal assembly) and 4.0 m (vertical assembly).
⁷ Max. distance between supports 12.0 m (horizontal assembly) and 9.3 m (vertical assembly).

Fire resistance of SPB100W panel for ceilings is EI120 when distance between supports cc 3.5 m and EI60 when distance between the supports cc 3.9 m (stitched joint from the outside).

Profiling options	L Linear	M Microprofiled	R Ribbed	F Flat
External	●	●	● R28*, R250*, R275, R500*, R550	●
Internal	●			●

- available
* For panel modular width 1000 mm only

Standard external colours – Polyester	1015	5005	7015	7035**	9002	9006**	9007**	9010
Standard internal colours – Polyester	9002	9010						

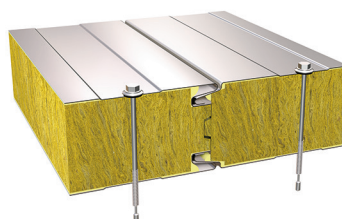
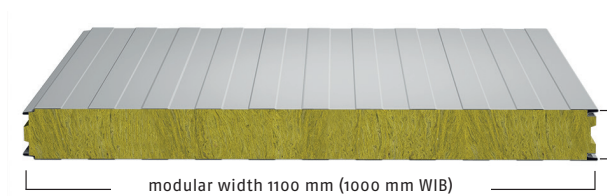
Other colours acc. to RAL available only on special order, following additional arrangements.
** Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Balkans and Baltic countries.

Sandwich panel for internal walls

SPB WI

- With its non-combustible structural mineral wool core, this panel insulates noise well and provides excellent fire safety.
- It is an ideal solution for internal walls with high requirements for fire resistance.



Core thickness D mm	Width		Thickness of facings		Maximum length m	Weight kg/m ²	U design value W/m ² K	Reaction to fire	Specific acoustic insulation Rw dB
	Total mm	Modular mm	External mm	Internal mm					
80	1118 or 1018	1100 or 1000	0.5	0.5	8.0	17.9	0.50	A2-s1,d0	32
100					12.0	20.2	0.41		
140					12.0	24.8	0.29		

Thickness mm	80	100	140
Fire resistance	EI 15 ¹ , EI 30 ²	EI 60 ³ , EI 120 ⁴	EI 60 ³ , EI 120 ⁴ , EI 180 ⁵

¹ Max. distance between supports 12.0 m (horizontal assembly) and 4.0 m (vertical assembly).

² Max. distance between supports 10.7 m (horizontal assembly) and 4.0 m (vertical assembly).

³ Max. distance between supports 11.1 m (horizontal assembly) and 4.0 m (vertical assembly).

⁴ Max. distance between supports 10.5 m (horizontal assembly) and 4.0 m (vertical assembly).

⁵ Max. distance between supports 10.0m (horizontal assembly) and 4,0 (vertical assembly).

Profiling options	Linear L
External	●
Internal	●

● available

Standard internal colours – Polyester

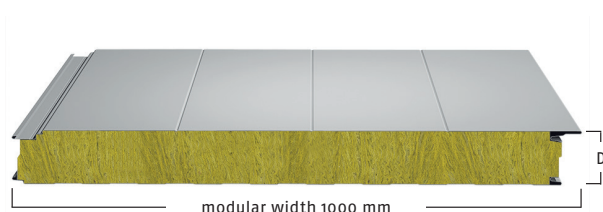
9002	9010
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Market area: Central Eastern Europe, Balkans and Baltic countries.

Sandwich panel for external walls

SP2D WE

- With its non-combustible structural mineral wool core and concealed fixing joint design, this panel insulates noise well and provides excellent fire safety and thermal insulation.
- Thanks to concealed fixing method this panel enables façade design with considerable less joint flashings compared to traditionally fixed panels.
- It is an ideal solution for facades with high requirements for energy efficiency and visual appearance.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m²	U value W/m²K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
100	1054	1000	0.6	0.5	12.0	18.5	0.40	A2-s1,d0	≥29
120						20.3	0.33		
140						22.1	0.28		
160						23.9	0.25		
180						25.8	0.22		
200						27.6	0.20		

Thickness mm		100	120	140	160	180	200
Fire resistance	From inside	EI 30 ¹ , EI 60 ³	EI 30 ¹ , EI 60 ³	EI 30 ¹ , EI 60 ³	EI 30 ¹ , EI 60 ⁴ , EI 120 ⁴	EI 30 ¹ , EI 60 ⁴ , EI 120 ⁴	EI 30 ¹ , EI 60 ⁴ , EI 120 ⁴
	From outside	EI 90 ² , EI 120 ³	EI 90 ² , EI 120 ³	EI 90 ² , EI 120 ³	EI 90 ² , EI 120 ⁵ , EI 240 ⁵	EI 90 ² , EI 120 ⁵ , EI 240 ⁵	EI 90 ² , EI 120 ⁵ , EI 240 ⁵

¹ Max. distance between supports 4.0 m (horizontal assembly) and 11.9 m (vertical assembly).

² Max. distance between supports 4.0 m (horizontal assembly) and 11.6 m (vertical assembly).

³ Max. distance between supports 4.0 m (horizontal assembly) and 4.0 m (vertical assembly).

⁴ Max. distance between supports 4.0 m (horizontal assembly) and 9.8 m (vertical assembly).

⁵ Max. distance between supports 4.0 m (horizontal assembly) and 9.5 m (vertical assembly).

Profiling options	L Linear	M Microprofiled	R Ribbed	F Flat
External	●	●	● R28, R250, R500	
Internal	●			●

● available

Standard external colours – Polyester	1015	5005	7015	7035*	9002	9006*	9007	9010
Standard internal colours – Polyester	9002	9010						

Other colours acc. to RAL available only on special order, following additional arrangements.

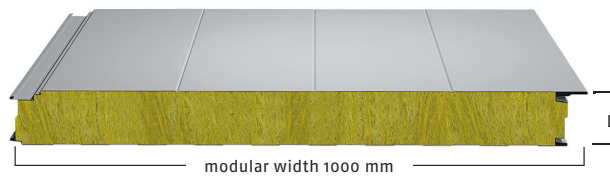
* Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Balkans and Baltic countries.

Sandwich panel for external walls

SP2D W

- With its non-combustible structural mineral wool core and concealed fixing joint design, this panel insulates noise well and provides excellent fire resistance.
- Thanks to concealed fixing method this panel enables façade design with considerable less joint flashings compared to traditionally fixed panels.
- It is an ideal solution for facades with high requirements for fire resistance and visual appearance.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
100	1054	1000	0.6	0.5	12.0	21.0	0.43	A2-s1,d0	≥32
120						23.3	0.35		
140						25.6	0.30		
160						27.9	0.27		
180						30.2	0.24		
200						32.5	0.21		

Thickness mm		100	120	140	160	180	200
Fire resistance	From inside	EI 60 ¹	EI 60 ¹	EI 60 ¹	EI 60 ² , EI 120 ⁵	EI 60 ² , EI 120 ⁵	EI 60 ² , EI 120 ⁵
	From outside	EI 60 ¹ , EI 90 ³ , EI 120 ⁴	EI 60 ¹ , EI 90 ³ , EI 120 ⁴	EI 60 ¹ , EI 90 ³ , EI 120 ⁴	EI 60 ² , EI 90 ⁶ , EI 120 ⁶ , EI 240 ⁷	EI 60 ² , EI 90 ⁶ , EI 120 ⁶ , EI 240 ⁷	EI 60 ² , EI 90 ⁶ , EI 120 ⁶ , EI 240 ⁷

¹ Max. distance between supports 11.1 m (horizontal assembly) and 4.0 m (vertical assembly).

² Max. distance between supports 11.1 m (horizontal assembly) and 12.0 m (vertical assembly).

³ Max. distance between supports 4.0 m (horizontal assembly) and 11.6 m (vertical assembly).

⁴ Max. distance between supports 4.0 m (horizontal assembly) and 4.0 m (vertical assembly).

⁵ Max. distance between supports 4.0 m (horizontal assembly) and 9.8 m (vertical assembly).

⁶ Max. distance between supports 4.0 m (horizontal assembly) and 12.0 m (vertical assembly).

⁷ Max. distance between supports 4.0 m (horizontal assembly) and 9.5 m (vertical assembly).

Profiling options	L Linear	M Microprofiled	R Ribbed	F Flat
External	●	●	● R28, R250, R500	
Internal	●			●

● available

Standard external colours – Polyester	1015	5005	7015	7035*	9002	9006*	9007	9010
Standard internal colours – Polyester	9002	9010						

Other colours acc. to RAL available only on special order, following additional arrangements.

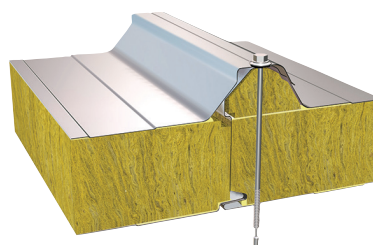
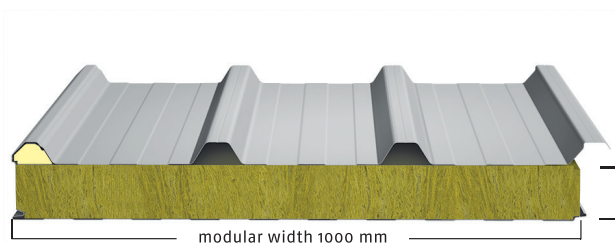
* Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Balkans and Baltic countries.

Sandwich panel for roofs

SPC W

- With its non-combustible structural mineral wool core, this panel insulates noise well and provides excellent fire safety for roof constructions.
- It is an ideal solution for roofs with high requirements for fire resistance.



Core thickness d/D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Fire propagation	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm						
140/100	1059	1000	0.6	0.5	12.0	21.2	0.41	A2-s1,d0	B _{roof}	34
190/150						26.9	0.28			

Thickness mm	140/100	190/150
Fire resistance	REI 60 ¹ , RE 180 ¹	REI 60 ¹ , RE 180 ¹

¹ Span bending moment $M_d \leq 0.1512 \text{ kNm/m}$, support bending moment $M_d \leq -0.27 \text{ kNm/m}$; snow load $0.2xS$ to be considered in calculations.

Profiling options	T Trapezoidal	L Linear	F Flat
External	●		
Internal		●	●

● available

Standard external colours – Polyester	1015	5005	7015	7035	9002	9006	9007	9010
Standard internal colours – Polyester	9002	9010						

Other colours acc. to RAL available only on special order, following additional arrangements.

Market area: Central Eastern Europe, Scandinavia, Balkans and Baltic countries and UK.

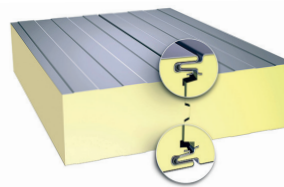
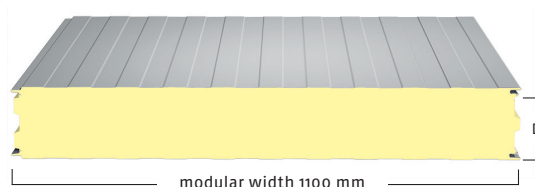
Ruukki® energy panel for external walls SP2B X-PIR ENERGY

- Excellent thermal properties.
- Very good fire properties (increased fire parameters of the X-PIR foam).
- Thanks to its exceptionally high airtightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%. Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- It is the ultimate solution for facades with high requirements for energy efficiency and airtightness.
- Energy panels are installed by trained and certified installers following special energy panel construction details.
- Energy panel delivery includes an energy simulation service, which provides an overall view of building's total energy consumption, revealing the critical factors in maximizing energy efficiency and the impact



an optimized building envelope structure has on a building's heating costs and energy efficiency.

- Energy panel system come with airtightness guarantee by Ruukki.
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m²	U value W/m²K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
100	1120	1100	0.5 or 0.6*	0.4	18.5	12.1	0.22	B-s1,d0	≥24

* 0.6 mm thickness for facings in III colour group and for facings with flat profiling in II or III colour group.

Thickness mm	100
Fire resistance	EI 15 ^{1,3} , EI 30 ² , EW 30 ²

¹ Max. distance between supports 11.9 m (horizontal assembly) and 4.0 m (vertical assembly).

² Max. distance between supports 4.0 m (horizontal assembly) and 4.0 m (vertical assembly).

³ Max. distance between supports 12.0m (horizontal assembly) and 4.0m (vertical assembly) – for stainless steel facings.

Fire resistance of SP2B100X-PIR ENERGY panel for ceilings is EI30 when distance between supports cc 2.0 m and EI15 when distance between supports cc 4,8 m.

Profiling options	L Linear	M Microprofiled	F Flat	P Embossed	R28 Ribbed
External	●	●	●	●	●
Internal	●		●		

● available

Standard external colours – Polyester	1015	3013	5005	6011	7015	7016	7035**	9002	9006**	9007**	9010
Optional internal facings	INOX	PVC									
Standard internal colours – Polyester	9002	9010									

Other colours acc. to RAL available only on special order, following additional arrangements.

** Colours are also available as standard with HIARC coating.

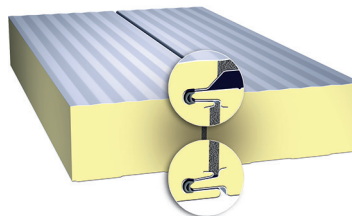
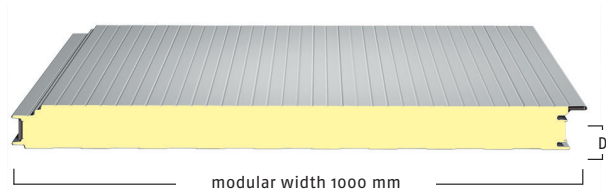
Market area: Central Eastern Europe, Scandinavia, Balkans and Baltic countries and UK.

Ruukki® energy panel for external walls SP2D X-PIR ENERGY

- Excellent thermal properties.
- Very good fire properties (increased fire parameters of the PIR foam).
- Excellent visual appearance (no visible fixing).
- Thanks to its exceptionally high airtightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%. Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- Thanks to concealed fixing method this panel enables facade design with considerable less joint flashings compared to traditionally fixed panels.
- It is the ultimate solution for facades with high requirements for energy efficiency and airtightness.
- Energy panels are installed by trained and certified installers following special energy panel construction details.



- Energy panel delivery includes an energy simulation service, which provides an overall view of building's total energy consumption, revealing the critical factors in maximizing energy efficiency and the impact an optimized building envelope structure has on a building's heating costs and energy efficiency.
- Energy panel system come with airtightness guarantee by Ruukki.
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
100	1050	1000	0.5	0.4	18.5	12.0	0.22	B-s2,d0	≥24
120			or 0.6*			12.8	0.18		

* 0.6 mm thickness for facings in III colour group and for facings with flat profiling in II or III colour group.

Thickness mm		100	120
Fire resistance	From inside	EW 30 ¹ , EI 15 ³	EW 30 ¹ , EI 15 ³
	From outside	EI 15 ² , EW30 ²	EI 15 ² , EW30 ²

¹ Max. distance between supports 3.0 m (horizontal assembly) and 3.0 m (vertical assembly).

² Max. distance between supports 4.0 m (horizontal assembly) and 4.0 m (vertical assembly).

³ Max. distance between supports 7.0 m (horizontal assembly) and 8.8 m (vertical assembly).

Profiling options	L Linear	M Microprofiled	F Flat	P Embossed	R28 Ribbed
External	●	●	●	●	●
Internal	●		●		

● available

Standard external colours – Polyester	1015	3013	5005	6011	7015	7016	7035**	9002	9006**	9007**	9010
Standard internal colours – Polyester	9002	9010									

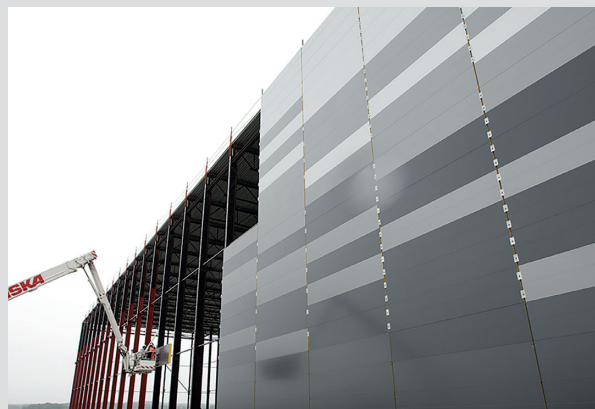
Other colours acc. to RAL available only on special order, following additional arrangements.

** Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, UK, Scandinavia, Balkans and Baltic countries.

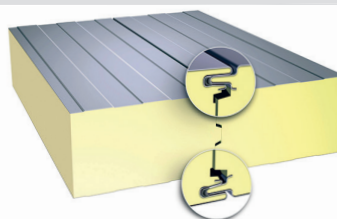
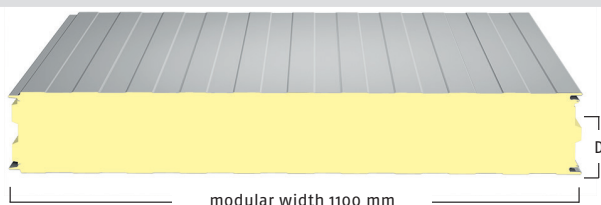
Ruukki® energy panel for external walls SP2E X-PIR ENERGY

- Excellent thermal properties.
- Very good fire properties (increased fire parameters of the PIR foam).
- Thanks to its exceptionally high airtightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%. Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- It is the ultimate solution for facades with high requirements for energy efficiency and airtightness.
- Energy panels are installed by trained and certified installers following special energy panel construction details.
- Energy panel delivery includes an energy simulation service, which provides an overall view of building's total energy consumption, revealing the critical factors



in maximizing energy efficiency and the impact an optimized building envelope structure has on a building's heating costs and energy efficiency.

- Energy panel system come with airtightness guarantee by Ruukki.
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m²	U value W/m²K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
120	1120	1100	0.5 or 0.6*	0.4* or 0.5	18.5	13.8	0.18	B-s1,d0	≥25
160						15.5	0.14		
180						16.4	0.12		
200						17.3	0.11		

* 0.6 mm thickness for facings in III colour group and for facings with flat profiling in II or III colour group / internal facing thickness 0.4 mm available for panels thickness 120 mm

Thickness mm	120	160	180	200
Fire resistance	EI 15 ^{1,5} , EI 30 ² , EW 30 ²	EI 15 ^{1,5} , EI 30 ² , EW 30 ²	EI 15 ^{1,5} , EI 30 ² , EW 30 ²	EI 15 ^{1,5} , EI 30 ³ , EW 30 ³ , EI 60 ⁴ , EW 60 ⁴

¹ Max. distance between supports 11.9 m (horizontal assembly) and 11.8 m (vertical assembly).

² Max. distance between supports 7.9 m (horizontal assembly) and 11.8 m (vertical assembly).

³ Max. distance between supports 12.0 m (horizontal assembly) and 11.8 m (vertical assembly).

⁴ Max. distance between supports 9.1 m (horizontal assembly) and 3.0 m (vertical assembly).

⁵ Max. distance between supports 9.0m (horizontal assembly) and 4.0m (vertical assembly) – for stainless steel facings.

Profiling options	L Linear	M Microprofiled	F Flat	R28 Ribbed
External	●	●	●	●
Internal	●		●	

● available

Standard external colours – Polyester	1015	3013	5005	6011	7015	7016	7035**	9002	9006**	9007*	9010	***
Optional internal facings	INOX	PVC(F)										
Standard internal colours – Polyester	9002	9010										

For stainless steel facings L linear profiling is available. Other colours acc. to RAL available only on special order, following additional arrangements.

** Colours are also available as standard with HIARC coating.

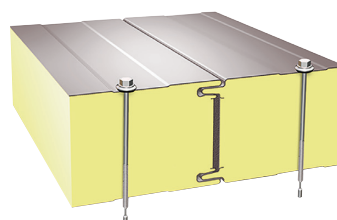
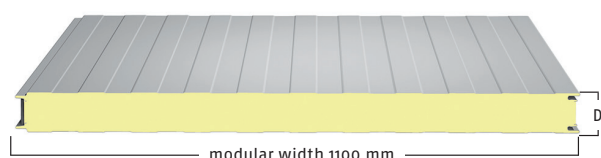
*** Remark: for cold storage and refrigerator can be use 1015, 7035, 9002, 9010 colours.

Market area: Central Eastern Europe, Scandinavia, Balkans and Baltic countries and UK.

Sandwich panel for external and internal walls and for ceilings

SP2B X-PIR

- Excellent thermal properties.
- Very good fire properties (increased fire parameters of the X-PIR foam).
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
40	1120	1100	0.5	0.4	18.5	9.5	0.56	B-s2,d0	≥24
60						10.3	0.36	B-s2,d0	
80						11.2	0.27	B-s2,d0	
100						12.1	0.22	B-s1,d0	

Thickness mm	40	60	80	100
Fire resistance	EW 30 ¹	EW 30 ¹	EI 15 ¹ , EW 30 ¹	EI 15 ^{2, 4} , EI 30 ³ , EW 30 ³

¹ Max. distance between supports 3.0 m (horizontal assembly) and 3.0 m (vertical assembly).

² Max. distance between supports 11.9 m (horizontal assembly) and 4.0 m (vertical assembly).

³ Max. distance between supports 4.0 m (horizontal assembly) and 4.0 m (vertical assembly).

⁴ Max. distance between supports 12.0m (horizontal assembly) and 4.0m (vertical assembly) – for stainless steel facings.

Fire resistance of SP2B100X-PIR panel for ceilings is EI30 when distance between supports cc 2.0 m and EI15 when distance between supports cc 4.8 m.

Profiling options	L Linear	M Microprofiled	F Flat	P Embossed	R28 Ribbed
External	●	●	●	●	●
Internal	●		●		

● available

Standard external colours – Polyester	1015	3013	5005	6011	7015	7016	7035*	9002	9006*	9007	9010
Optional internal facings	INOX	PVC									
Standard internal colours – Polyester	9002	9010									

Other colours acc. to RAL available only on special order, following additional arrangements.

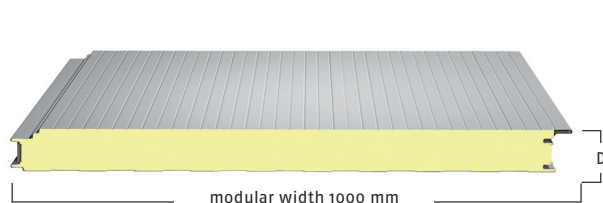
* Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Balkans and Baltic countries and UK.

Sandwich panel for external walls

SP2D X-PIR

- Excellent thermal properties.
- Very good fire properties (increased fire parameters of the X-PIR foam).
- Excellent visual appearance (no visible fixing).
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
60	1050	1000	0.5 or 0.6*	0.4	18.5	10.4	0.38	B-s2,d0	≥24
80						11.2	0.28	B-s2,d0	
100						12.0	0.22	B-s1,d0 (for panels with sealings B-s2,d0)	
120						12.8	0.18	B-s1,d0 (for panels with sealings B-s2,d0)	

* 0.6 mm thickness for facings in III colour group and for facings with flat profiling in II or III colour group.

Thickness mm		60	80	100	120
Fire resistance	From inside	EW 30 ¹	EW 30 ¹ , EI 15 ²	EW 30 ¹ , EI 15 ³	EW 30 ¹ , EI 15 ³
	From outside	EI 15 ² , EW30 ²	EI 15 ² , EW30 ²	EI 15 ² , EW30 ²	EI 15 ² , EW30 ²

¹ Max. distance between supports 3.0 m (horizontal assembly) and 3.0 m (vertical assembly).

² Max. distance between supports 4.0 m (horizontal assembly) and 4.0 m (vertical assembly).

³ Max. distance between supports 7.0 m (horizontal assembly) and 8.8 m (vertical assembly).

Profiling options	L Linear	M Microprofiled	F Flat	P Embossed	R28 Ribbed
External	●	●	●	●	●
Internal	●		●		

● available

Standard external colours – Polyester	1015	3013	5005	6011	7015	7016	7035**	9002	9006**	9007**	9010
Standard internal colours – Polyester	9002	9010									

Other colours acc. to RAL available only on special order, following additional arrangements.

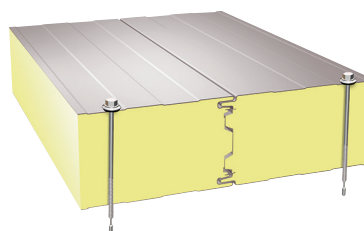
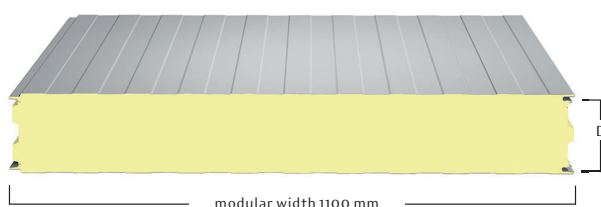
** Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Scandinavia, Balkans and Baltic countries and UK.

Sandwich panel for external and internal walls and for cold storage

SP2E X-PIR

- Excellent thermal properties.
- Very good fire properties (increased fire parameters of the X-PIR foam).
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
120	1120	1100	0.5 or 0.6*	0.4* or 0.5	18.5	13.8	0.18	B-s1,d0	≥25
160						15.5	0.14		
180						16.4	0.12		
200						17.3	0.11		

* 0.6 mm thickness for facings in III colour group and for facings with flat profiling in II or III colour group / internal facing thickness 0.4 mm available for panels thickness 120 mm

Based on CE-marking (EN 14509)				
Thickness mm	120	160	180	200
Fire resistance	EI 15 ^{1,5} , EI 30 ² , EW 30 ²	EI 15 ^{1,5} , EI 30 ² , EW 30 ²	EI 15 ^{1,5} , EI 30 ² , EW 30 ²	EI 15 ⁵ , EI30 ³ , EW30 ³ , EI60 ⁴ , EW60 ⁴

¹ Max. distance between supports 11.9 m (horizontal assembly) and 11.8 m (vertical assembly).

² Max. distance between supports 7.9 m (horizontal assembly) and 11.8 m (vertical assembly).

³ Max. distance between supports 12.0 m (horizontal assembly) and 11.8 m (vertical assembly).

⁴ Max. distance between supports 9.1 m (horizontal assembly) and 3.0 m (vertical assembly).

⁵ Max. distance between supports 9.0m (horizontal assembly) and 4.0m (vertical assembly) – for stainless steel facings.

Profiling options	L Linear	M Microprofiled	F Flat	R28 Ribbed
External	●	●	●	●
Internal	●		●	

● available

Standard external colours – Polyester	1015	3013	5005	6011	7015	7016	7035**	9002	9006**	9007**	9010	***
Standard internal colours – Polyester	9002	9010										
Optional internal facings	INOX	PVC(F)										

For stainless steel facings L linear profiling is available. Other colours acc. to RAL available only on special order, following additional arrangements.

** Colours are also available as standard with HIARC coating.

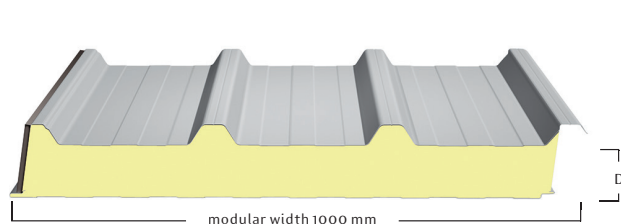
*** Remark: for cold storage and refrigerator can be use 1015, 7035, 9002, 9010 colours.

Market area: Central Eastern Europe, Scandinavia, Balkans and Baltic countries and UK.

Sandwich panel for roofs

SP2C X-PIR

- Excellent thermal properties.
- Very good fire properties (increased fire parameters of the X-PIR foam).
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness d/D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Fire propagation	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm						
80/40	1083	1000	0.5	0.4	18.5	9.7	0.50	B-s2,d0	B _{roof} (t1)	≥24
100/60						10.5	0.34	B-s2,d0		
120/80						11.3	0.26	B-s2,d0		
140/100						12.1	0.21	B-s1,d0 (for panels with sealings B-s2,d0)		
160/120						12.9	0.18	B-s1,d0 (for panels with sealings B-s2,d0)		
210/170						14.9	0.13	B-s1,d0 (for panels with sealings B-s2,d0)		

Thickness mm	80/40	100/60	120/80	140/100	160/120	210/170
Fire resistance	REI 15 ¹ , RE 90 ¹	REI 15 ¹ , RE 90 ¹	REI 15 ¹ , RE 90 ¹	REI 15 ¹ , RE 90 ¹	REI 15 ¹ , RE 90 ¹	REI 15 ¹ , RE 90 ¹
	REI 20 ² , RE 30 ²	REI 20 ² , RE 30 ²	REI 30 ³ , RE 60 ³	REI 30 ³ , RE 60 ³	REI 30 ³ , RE 60 ³	REI 30 ³ , RE 60 ³

¹ Span bending moment Md ≤ 0.094 kNm/m, support bending moment Md ≤ -0.168 kNm/m; snow load 0.2xS to be considered in calculations.

² Span bending moment Md ≤ 0.116 kNm/m, support bending moment Md ≤ -0.207 kNm/m; snow load 0.2xS to be considered in calculations.

³ Span bending moment Md ≤ 0.121 kNm/m, support bending moment Md ≤ -0.215 kNm/m; snow load 0.2xS to be considered in calculations.

Profiling options	L Linear	T Trapezoidal
External		●
Internal	●	

● available

Standard external colours – Polyester	1015	3013	5005	6011	7015	7016	7035	9002	9006	9007	9010
Standard internal colours – Polyester	9002	9010									

Other colours acc. to RAL available only on special order, following additional arrangements.

Market area: Central Eastern Europe, Scandinavia, Balkans and Baltic countries.

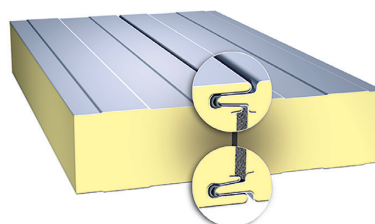
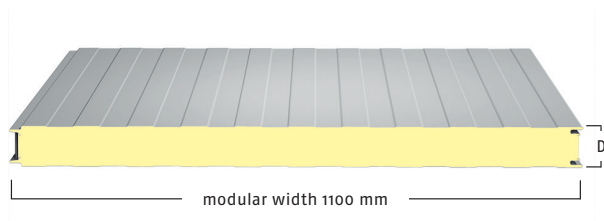
Sandwich panel for external walls SP2B E-PIR ENERGY

- Excellent thermal insulation properties.
- Good fire properties.
- Thanks to its exceptionally high airtightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%. Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- It is the ultimate solution for facades with high requirements for energy efficiency and airtightness.
- Energy panels are installed by trained and certified installers following special energy panel construction details.
- Energy panel delivery includes an energy simulation service, which provides an overall view of building's total energy consumption, revealing the critical factors



in maximizing energy efficiency and the impact an optimized building envelope structure has on a building's heating costs and energy efficiency.

- Energy panel system come with airtightness guarantee by Ruukki.
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
100	1120	1100	0.5 or 0.6*	0.4	18.5	11.8	0.22	B-s2,d0	≥24

* 0.6 mm thickness for facings in III colour group and for facings with flat profiling in II or III colour group.

Thickness mm	100
Fire resistance	EI 15 ² , EI 30 ¹ , EW 30 ¹

¹ Max. distance between supports 4.0 m (horizontal assembly) and 4.0 m (vertical assembly).

² Max. distance between supports 11.2 m (horizontal assembly) and 4.0 m (vertical assembly).

Profiling options	L Linear	M Microprofiled	F Flat	P Embossed	R28 Ribbed
External	●	●	●	●	●
Internal	●		●		

● available

Standard external colours – Polyester	1015	3013	5005	6011	7015	7016	7035**	9002	9006**	9007**	9010
Standard internal colours – Polyester	9002	9010									
Optional internal facings	PVC										

For stainless steel facings L linear profiling is available. Other colours acc. to RAL available only on special order, following additional arrangements.

** Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Scandinavia, Balkans and Baltic countries.

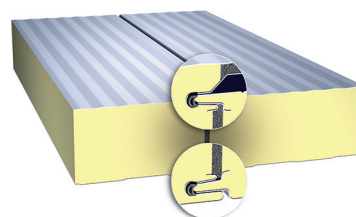
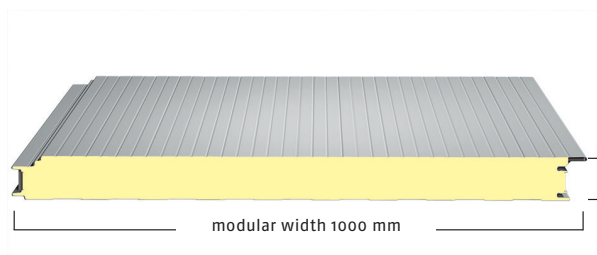
Ruukki® energy panel for external walls SP2D E-PIR ENERGY

- Excellent thermal insulation properties.
- Good fire properties.
- Excellent visual appearance (no visible fixing).
- Thanks to its exceptionally high airtightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%. Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- Thanks to concealed fixing method this panel enables facade design with considerable less joint flashings compared to traditionally fixed panels.
- It is the ultimate solution for facades with high requirements for energy efficiency and airtightness.
- Energy panels are installed by trained and certified installers following special energy panel construction details.
- Energy panel delivery includes an energy simulation service, which provides an overall view of building's



total energy consumption, revealing the critical factors in maximizing energy efficiency and the impact an optimized building envelope structure has on a building's heating costs and energy efficiency.

- Energy panel system come with airtightness guarantee by Ruukki.
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
100	1050	1000	0.5	0.4	18.5	11.7	0.22	B-s2,d0	≥24
120			or 0.6*			12.4	0.18		

* 0.6 mm thickness for facings in III colour group and for facings with flat profiling in II or III colour group.

Thickness mm		100	120
Fire resistance	From inside	EI15 ¹	EI15 ¹
	From outside	EI 15 ¹	EI 15 ¹

¹ Max. distance between supports 6.3 m (horizontal assembly) and 4.0 m (vertical assembly).

Profiling options	L Linear	M Microprofiled	F Flat	P Embossed	R28 Ribbed
External	●	●	●	●	●
Internal	●		●		

● available

Standard external colours – Polyester	1015	3013	5005	6011	7015	7016	7035**	9002	9006**	9007**	9010
Standard internal colours – Polyester	9002	9010									

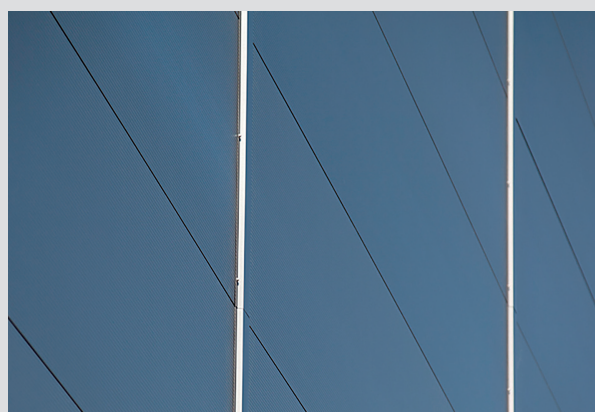
Other colours acc. to RAL available only on special order, following additional arrangements.

**Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Scandinavia, Balkans and Baltic countries.

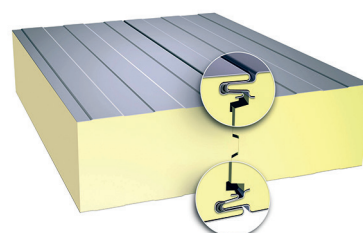
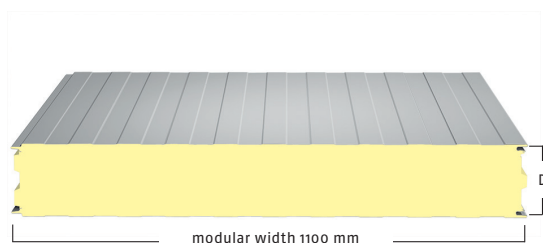
Ruukki® energy panel for external walls SP2E E-PIR ENERGY

- Excellent thermal insulation properties.
- Good fire properties.
- Thanks to its exceptionally high airtightness, it can reduce your buildings energy costs and CO₂ –emissions up to 20%. Furthermore, it improves the energy class of your building and earns more LEED and BREEAM credits.
- It is the ultimate solution for facades with high requirements for energy efficiency and airtightness.
- Energy panels are installed by trained and certified installers following special energy panel construction details.
- Energy panel delivery includes an energy simulation service, which provides an overall view of building's total energy consumption, revealing the critical factors



in maximizing energy efficiency and the impact an optimized building envelope structure has on a building's heating costs and energy efficiency.

- Energy panel system come with airtightness guarantee by Ruukki.
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m²	U value W/m²K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
120	1120	1100	0.5 or 0.6*	0.4* or 0.5	18.5	13.4	0.18	B-s2,d0	≥25
160						15.2	0.14		
180						16.0	0.12		
200						16.8	0.11		

* 0.6 mm thickness for facings in III colour group and for facings with flat profiling in II or III colour group / internal facing thickness 0.4 mm available for panels thickness 120 mm.

Thickness mm	120	160	180	200
Fire resistance	EI 15 ¹ , EI 30 ² , EW 30 ²	EI 15 ¹ , EI 30 ² , EW 30 ²	EI 15 ¹ , EI 30 ² , EW 30 ²	EI 15 ¹ , EI 30 ² , EW 30 ²

¹ Max. distance between supports 11.4 m (horizontal assembly) and 4.0 m (vertical assembly).

² Max. distance between supports 4.0 m (horizontal assembly) and 4.0 m (vertical assembly).

Profiling options	L Linear	M Microprofiled	F Flat	P Embossed	R28 Ribbed
External	●	●	●	●	●
Internal	●		●		

● available

Standard external colours – Polyester	1015	3013	5005	6011	7015	7016	7035**	9002	9006**	9007**	9010	***
Standard internal colours – Polyester	9002	9010										
Optional internal facings	PVC(F)											

For stainless steel facings L linear profiling is available. Other colours acc. to RAL available only on special order, following additional arrangements.

** Colours are also available as standard with HIARC coating.

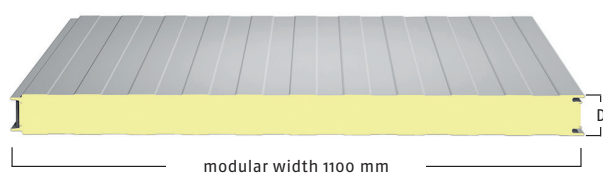
*** Remark: for cold storage and refrigerator can be use 1015, 7035, 9002, 9010 colours.

Market area: Central Eastern Europe, Scandinavia, Balkans and Baltic countries.

Sandwich panel for internal and external walls, ceilings

SP2B E-PIR

- Excellent thermal insulation properties.
- Good fire properties.
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m²	U value W/m²K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
40	1120	1100	0.5 or 0.6*	0.4	18.5	9.3	0.56	B-s2,d0	≥24
60						10.1	0.36		
80						11.0	0.27		
100						11.8	0.22		

* 0.6 mm thickness for facings in III colour group and for facings with flat profiling in II or III colour group.

Thickness mm	40	60	80	100
Fire resistance	–	–	–	EI 15 ² , EI 30 ¹ , EW 30 ¹ ,

¹ Max. distance between supports 4.0 m (horizontal assembly) and 4.0 m (vertical assembly).

² Max. distance between supports 11.2 m (horizontal assembly) and 4.0 m (vertical assembly).

Profiling options	L Linear	M Microprofiled	F Flat	P Embossed	R28 Ribbed
External	●	●	●	●	●
Internal	●		●		

● available

Standard external colours – Polyester	1015	3013	5005	6011	7015	7016	7035**	9002	9006**	9007**	9010
Standard internal colours – Polyester	9002	9010									
Optional internal facings	PVC										

For stainless steel facings L linear profiling is available. Other colours acc. to RAL available only on special order, following additional arrangements.

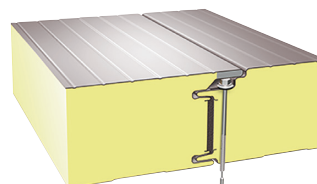
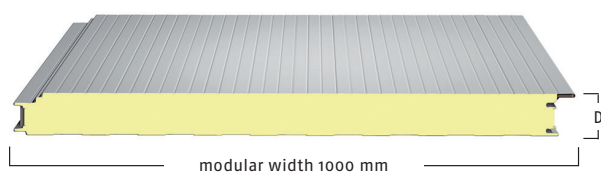
** Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Scandinavia, Balkans and Baltic countries.

Sandwich panel for external walls

SP2D E-PIR

- Excellent thermal insulation properties.
- Good fire properties.
- Excellent visual appearance (no visible fixing).
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m²	U value W/m²K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
60	1050	1000	0.5 or 0.6*	0.4	18.5	10.3	0.38	B-s2,d0	≥24
80						11.0	0.28		
100						11.7	0.22		
120						12.4	0.18		

* 0.6 mm thickness for facings in III colour group and for facings with flat profiling in II or III colour group.

Thickness mm		60	80	100	120
Fire resistance	From inside	–	EI 15 ¹	EI 15 ¹	EI 15 ¹
	From outside	–	–	EI 15 ¹	EI 15 ¹

¹ Max. distance between supports 6.3 m (horizontal assembly) and 4.0 m (vertical assembly).

Profiling options	L Linear	M Microprofiled	F Flat	P Embossed	R28 Ribbed
External	●	●	●	●	●
Internal	●		●		

● available

Standard external colours – Polyester	1015	3013	5005	6011	7015	7016	7035**	9002	9006**	9007**	9010
Standard internal colours – Polyester	9002	9010									

Other colours acc. to RAL available only on special order, following additional arrangements.

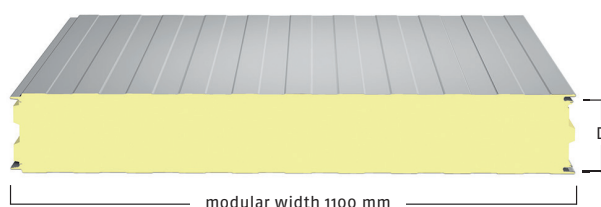
**Colours are also available as standard with HIARC coating.

Market area: Central Eastern Europe, Scandinavia, Balkans and Baltic countries.

Sandwich panel for internal and external walls, ceilings, cold stores

SP2E E-PIR

- Excellent thermal insulation properties.
- Good fire properties.
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m²	U value W/m²K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
120	1120	1100	0.5 or 0.6*	0.4* or 0.5	18.5	13.4	0.18	B-s2,d0	≥25
160						15.2	0.14		
180						16.0	0.12		
200						16.8	0.11		

* 0.6 mm thickness for facings in III colour group and for facings with flat profiling in II or III colour group / internal facing thickness 0.4 mm available for panels thickness 120 mm.

Thickness mm	120	160	180	200
Fire resistance	EI 15 ¹ , EW 30 ² , EI 30 ²	EI 15 ¹ , EW 30 ² , EI 30 ²	EI 15 ¹ , EW 30 ² , EI 30 ²	EI 15 ¹ , EW 30 ² , EI 30 ²

¹ Max. distance between supports 11.4 m (horizontal assembly) and 4.0 m (vertical assembly).

² Max. distance between supports 4.0 m (horizontal assembly) and 4.0 m (vertical assembly).

Profiling options	L Linear	M Microprofiled	F Flat	P Embossed	R28 Ribbed
External	●	●	●	●	●
Internal	●		●		

● available

Standard external colours – Polyester	1015	3013	5005	6011	7015	7016	7035**	9002	9006**	9007**	9010	***
Standard internal colours – Polyester	9002	9010										
Optional internal facings	PVC(F)											

For stainless steel facings L linear profiling is available. Other colours acc. to RAL available only on special order, following additional arrangements.

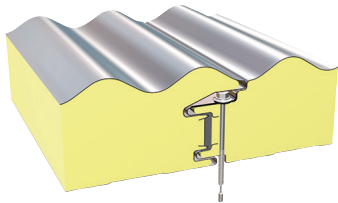
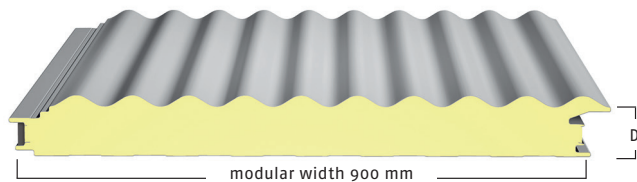
** Colours are also available as standard with HIARC coating.

*** Remark: for cold storage and refrigerator can be use 1015, 7035, 9002, 9010 colours.

Market area: Central Eastern Europe, Balkans and Baltic countries.

Sandwich panel for external walls
SPF E-PIR

- Excellent thermal insulation properties.
- Good fire properties.
- Excellent visual appearance (no visible fixing).
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness d/D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m²	U value W/m²K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm					
98/80	964	900	0.60	0.55	18.5	14.0	0.27	B-s3,d0	≥25

Thickness mm		98/80
Fire resistance	From inside	EI 15 ¹
	From outside	–

¹ Max. distance between supports 3.0 m (horizontal assembly) and 3.0 m (vertical assembly).

Profiling options	L Linear	S Sinusoidal	F Flat
External		●	
Internal	●		●

● available

Standard external colours – Polyester	9002	9006
Standard internal colours – Polyester	9002	

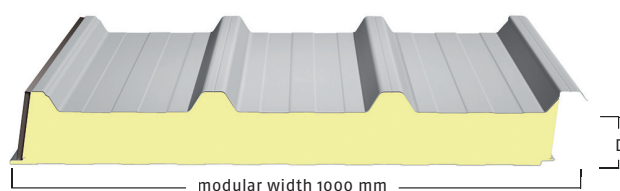
Other colours acc. to RAL available only on special order, following additional arrangements.

Colours & coatings available upon request

Market area: Central Eastern Europe, Balkans and Baltic countries.

Sandwich panel for roofs SP2C E-PIR

- Excellent thermal properties.
- Good fire properties.
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.



Core thickness d/D mm	Width		Thickness of facings		Maximum Length m	Weight kg/m ²	U value W/m ² K	Reaction to fire	Fire propagation	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm						
80/40	1083	1000	0.5	0.4 or 0.5*	18.5	9.5	0.50	B-s2,d0	B _{roof} (t1)	≥24
100/60						10.3	0.34			
120/80						11.0	0.26			
140/100						11.7	0.21			
160/120						12.5	0.18			
210/170						14.3	0.13			

* 0.5 mm thickness for internal facing with flat profiling.

Thickness mm	80/40	100/60	120/80	140/100	160/120	210/170
Fire resistance	REI 15 ¹ RE 60 ¹	REI 15 ¹ RE 60 ¹	REI 15 ¹ RE 60 ¹	REI 15 ¹ RE 60 ¹	REI 15 ¹ RE 60 ¹	REI 15 ¹ RE 60 ¹
	REI 20 ² RE 30 ²	REI 20 ² RE 30 ²	REI 30 ³ RE 30 ²	REI 30 ³ RE 30 ²	REI 30 ³ RE 30 ²	REI 30 ³ RE 30 ²

¹ Span bending moment Md ≤ 0.0672 kNm/m, support bending moment Md ≤ -0.1200 kNm/m; snow load 0.2xS to be considered in calculations.

² Span bending moment Md ≤ 0.0697 kNm/m, support bending moment Md ≤ -0.1245 kNm/m; snow load 0.2xS to be considered in calculations.

³ Span bending moment Md ≤ 0.0896 kNm/m, support¹ bending moment Md ≤ -0.1600 kNm/m; snow load 0.2xS to be considered in calculations.

Profiling options	L Linear	T Trapezoidal	F Flat
External		●	
Internal	●		●

● available

Standard external colours – Polyester	1015	3013	5005	6011	7015	7016	7035	9002	9006	9007	9010
Standard internal colours – Polyester	9002	9010									

Other colours acc. to RAL available only on special order, following additional arrangements.

Market area: Central Eastern Europe and Baltic countries.

Sandwich panel for external walls SP2B E-PIR AgriPro

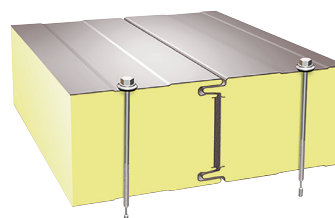
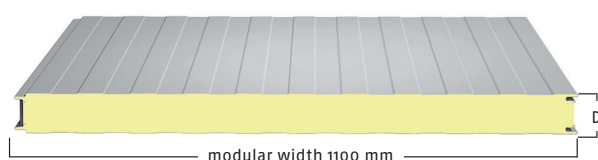
- Excellent thermal insulation properties.
- Available with a special Ruukki Csafe coating.
- New Ruukki Csafe coating for agricultural applications.
- Better scratching resistance: Ruukki Csafe coating – 3000 g*, standard polyester coating – 2000 g*.
- Better corrosion resistance: Ruukki Csafe coating – corrosion class RC4, standard polyester coating – corrosion class RC4.
- Better dirt resistance: Ruukki Csafe coating – ‘very good’, standard polyester coating – ‘good’.
- Better chemical resistance (ammonia & sodium hydroxide).



- Better UV-resistance (RUV4** against RUV2** as for standard polyester).
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.

* According to EN13523-12

** In accordance with EN101169 (RUV4 is the best class)



Core thickness D mm	Width		Thickness of facings		Maximum Length m	U value W/m²K	Reaction to fire	Specific acoustic insulation R _w dB
	Total mm	Modular mm	External mm	Internal mm				
40	1120	1100	0.4	0.4	12.0	0.56	B-s2,d0	≥24
60						0.36		
80						0.27		
100						0.22		

Profiling options	L Linear	M Microprofiled
External	●	●
Internal	●	

● available

Standard external colours – Polyester	9002	9006
Standard internal colours – Polyester	9002	
Optional coating – Csafe	Csafe 9002	

Other colours acc. to RAL available only on special order, following additional arrangements.

Market area: Central Eastern Europe and Baltic countries.

Sandwich panel for roofs

SP2C E-PIR AgriPro

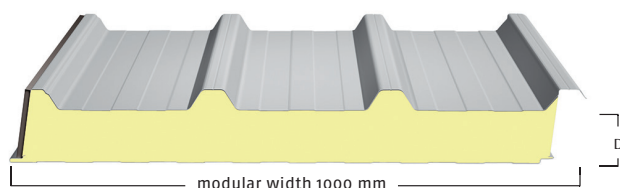
- Optimised panel for agricultural applications.
- Excellent thermal insulation properties.
- Available with a special Ruukki Csafe coating.
- New Ruukki Csafe coating for agricultural applications.
- Better scratching resistance: Ruukki Csafe coating – 3600 g*, standard polyester coating – 2000 g*.
- Better corrosion resistance: Ruukki Csafe coating – corrosion class RC4, standard polyester coating – corrosion class RC4.
- Better dirt resistance: Ruukki Csafe coating – ‘very good’, standard polyester coating – ‘good’.
- Excellent chemical resistance.



- Better UV-resistance (RUV4** against RUV2** as for standard polyester).
- Foam passes the small flame test at the outdoor core in accordance with the standards PN-EN ISO 11925-2:2010 and PN-EN 14509:2013.

*According to EN13523-12

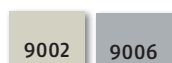
**In accordance with EN101169 (RUV4 is the best class)



Core thickness D mm	Width		Thickness of facings		Maximum length m	U design value W/m²K	Reaction to fire	Sound insulation value Rw dB
	Total mm	Modular mm	External mm	Internal mm				
80/40	1083	1000	0.4	0.4	13.5	0.50	B-s2,d0 Broof(t1)	≥24
100/60						0.34		
120/80						0.26		
140/100						0.21		

Profiling options	Linear L	Trapezoidal T
External		●
Internal	●	

Standard external colours – Polyester



Optional coating – Csafe



Standard internal colours – Polyester



* According to EN13523-12

** In accordance with EN101169 (RUV4 is the best class)

Accessories

Ruukki panels are offered with completed set of accessories:

- standard and special flashings;
- fasteners;
- seals;
- other.

Our accessories ensure rapid assembly, fastening reliability, joint tightness and aesthetic improvement of external and internal wall surface construction, as well as roofs of construction works of various sizes and destinations.

Standard flashings

Their shape, steel thickness and coating are specially adapted to suit our building solutions.

Special flashings

These are tailor-made according to a customer sketch and information on dimensions, steel thickness, coating and angles.

Fasteners

We offer wide range of panel fasteners for various frame structures: Steel, concrete and wood. Fasteners are available both in stainless steel and coated carbon steel. Our flashing screws are also available with coloured screw heads to match the flashing colour.

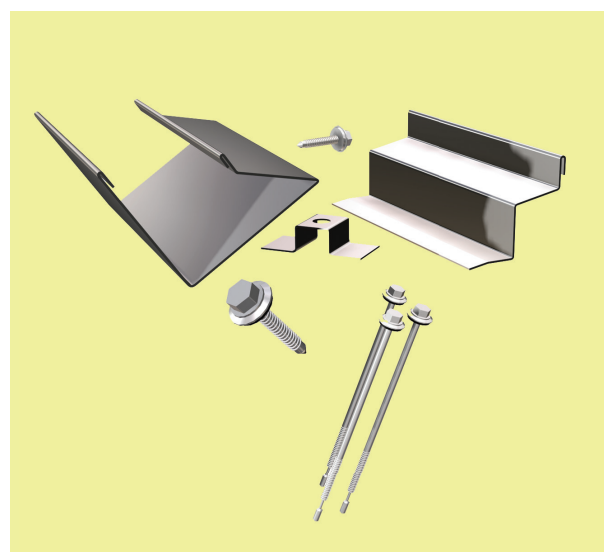
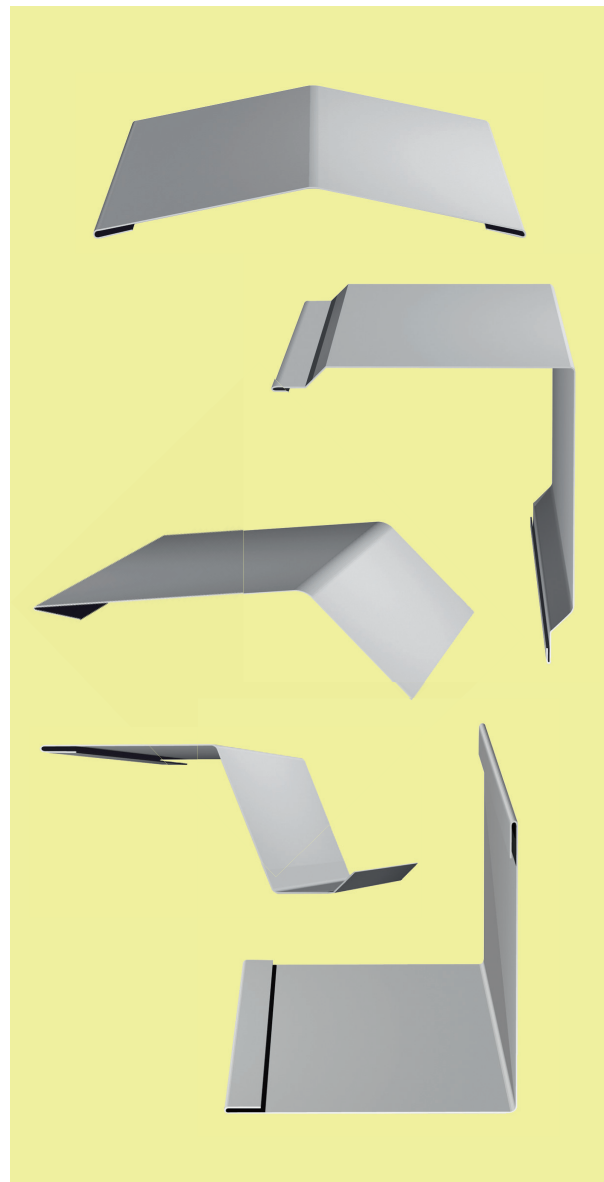
Sealants

We offer all needed sealants needed for building a weather & airtight envelope for your building with sandwich panels.

Other

- Installation tools (lifting tools etc)
- Windows and skylights
- Purlins

More detailed information about available accessories can be found from separate accessory product description.



Ruukki® facade systems

In addition to sandwich panel and energy panel systems, we also offer architecturally more advanced façade systems which combine high standard of architecture with excellent energy efficiency. High air-tightness of the base structure in Ruukki® façade systems, the Ruukki® energy panel system, can generate up to 20 % savings in a building's energy costs and improves its energy class.

Ruukki® façade systems are always all-inclusive deliveries with all needed components for a complete installation.

Ruukki Forma™ – wide range of shapes, materials and colours

Ruukki Forma™ is a complete facade system combining Ruukki's facade cladding products with the Ruukki® energy panel system. Ruukki Forma™ provides a wide range of aesthetic shape, material and colour options. Quick installation of the base structure, the Ruukki® energy panel system, provides a quick weather cover for the building, while the cladding material can be installed later.

Discover the wide variety of Ruukki Forma™ cladding options with our online tool:

www.ruukki.com/designpalette



Ruukki Expression™ – limited only by your imagination

Ruukki Expression™ is a complete facade system based on pictures and patterns taped on the outer skin of the Ruukki® energy panel system. Tapes can be through-coloured for various patterns and logos, or they can be printed with practically any pictures. This creates an unlimited range of design options – limited only by your imagination! Ruukki Expression™ tapes are of very high quality with excellent UV resistance.



Ruukki® solar systems for walls

All buildings manifest the values of their users – Make your sustainable values proudly visible by combining our energy panel system with Ruukki® on-wall solar or Liberta™ Solar systems to for clean renewable energy.

- Both with well-detailed appearances supporting the values which your building stands for.
- We have two different systems and approaches for different types of building projects – to assure a balance between the building and the solution.
- Easy project realization for new and existing buildings: freedom of design, complete delivery and easy installation
- Also available as Ruukki Forma™ (see previous page)

Are you looking for a rainscreen or add-on solar system? Choose Liberta™ Solar or Ruukki® on-wall solar.

Liberta™ Solar – impressive facade with green touch

Liberta™ Solar is a rainscreen panel which provides solid glass surface with no disruptive flashings and minimum seams. Perfect for buildings such as shopping centres and offices. Liberta™ Solar is both architecturally high-standard as well as a sustainable energy solution for new buildings and renovations.



Ruukki® on-wall solar – simple system with solar panels and frame

Ruukki® on-wall solar is a cost-effective add-on system to accentuate large facade surfaces with discretely detailed photovoltaic (PV) fields. Especially suitable for new and existing halls and other buildings with long facades. Ruukki® on-wall solar includes standard sized, high quality PV modules and a specifically designed aluminium frame.



Ruukki's Design Toolbox – software and modelling tools

To meet the needs of architects and designers we prepared the tools and software to design objects in cladding system made of sandwich panels. All essential information can be found on our website www.ruukki.com and at Toolbox <http://software.ruukki.com>.

At your disposal:

Ruukki's Design Toolbox,

containing the following software:

- TrayPan is a user-friendly application for optimized selection of Ruukki sandwich panels.
- The tool allows you to enter any static structure interacting with the sandwich panel loads (dead, live, thermal, wind or snow (for roofs) loads). The software also allows the selection of sandwich panels depending on the other parameters such as U-factor, fire resistance and acoustic parameters.
- TrayPan contains two user interfaces:
 - optimization tool for quick and easy pre-selection,
 - designer version for detailed structural analysis.

- POIMU software used for designing of load bearing profiles produced by Ruukki. Dimensioning includes checking the load capacity and stiffness of the sheets and (optional) checking capacity of the fasteners that secure the sheet. The calculations are made according to the Eurocode 3 – EN 1993-1-3.

- PURCALC software allows you for simple design and optimization of purlins produced by Ruukki. Thanks to the selection of the appropriate filters, you can easily choose the right characteristic of the product.

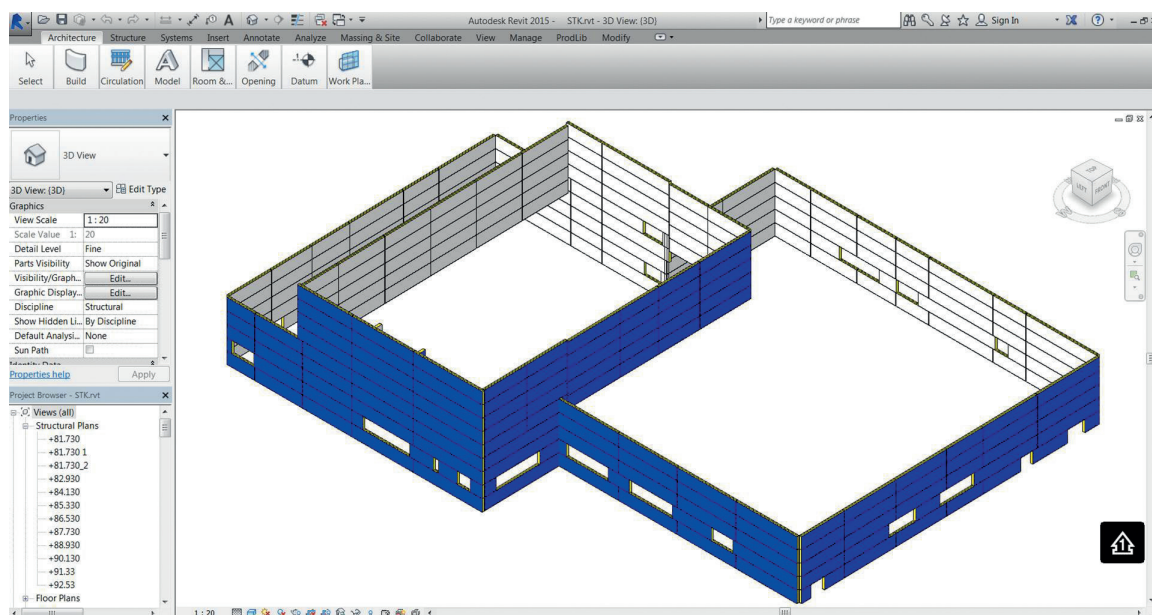
Savings calculator,

that allows you to check how much you can save your heating costs by using Ruukki energy panels.

Detail drawings in dwg and pdf formats

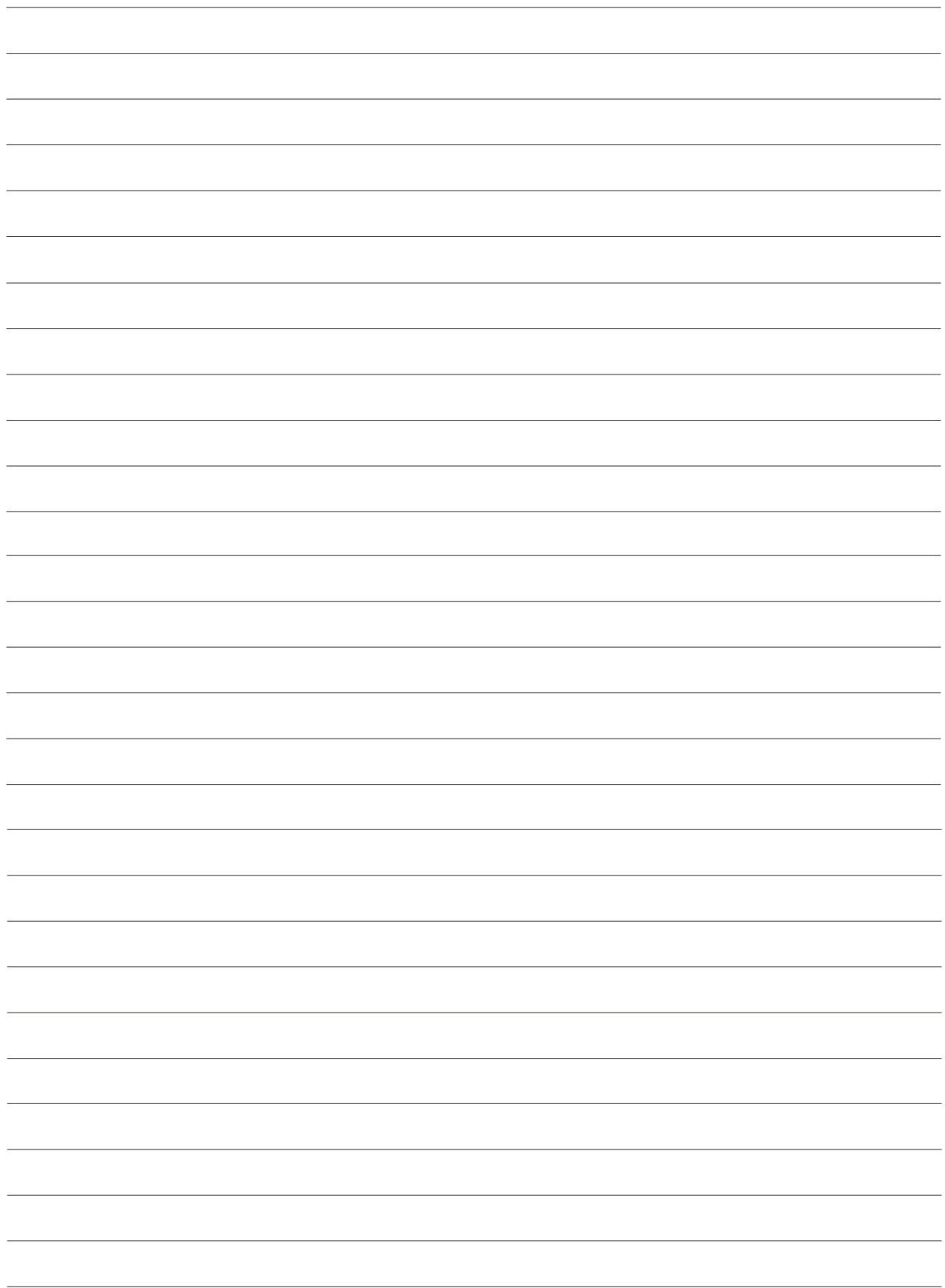
Load & spans tables for sandwich panels

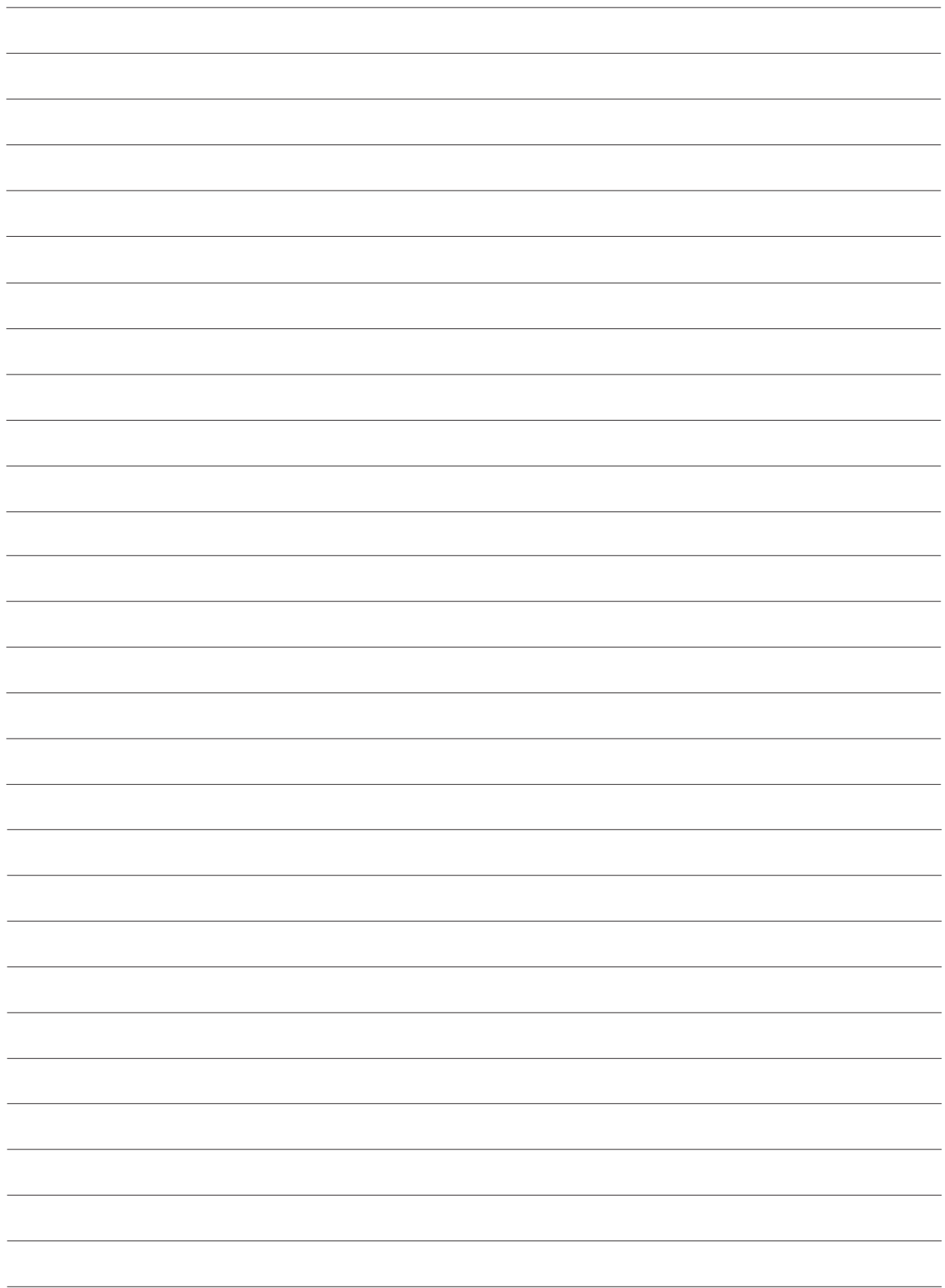
Ready modelled panels for Revit environment / BIM objects:



Notes

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**We work with investors who see opportunities.
We exist for designers and builders to fulfill their dreams.
We are here for those who bring buildings and homes to life.**

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Ruukki Construction Oy, Panuntie 11, FI-00620 Helsinki, +358 20 59 150, www.ruukki.com

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