Sandwich panel SP2E X-PIRS

Sandwich panel **SP2E X-PIRS** is available in thicknesses 120 - 160 mm.

Low U-value and proper joint design together with wide thickness range make this sandwich panel an ideal solution for **cold storage** buildings. Innovative technology increasing strength parameters of the panel provides for **load-bearing capacity up to 40% higher** comparing to standard solutions.

With excellent reaction to fire and fire resistance values, this panel ensures the highest level of fire safety for buildings and their users.

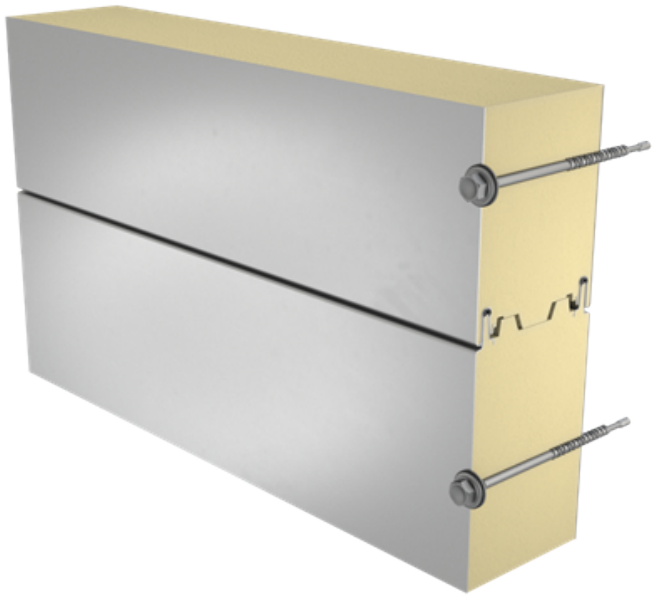
The core of this sandwich panel is made of rigid, HCFC-free, self-extinguishing and sustainable polyisocyanurate foam (PIR). Its **excellent thermal insulation properties** enable the decrease of panel thickness which transfers directly to lower transportation and assembly costs, as well as **significant savings** of building's life cycle costs.

Optionally, on request, **SP2E X-PIRS** sandwich panel can be delivered as FM Approved product with a certificate granted by the world-biggest insurance company FM Global. The global certificate received based on 4880 and 4881 standards confirms that a building’s envelope made of these sandwich panels from Ruukki ensures the highest safety level in case of fire or hurricane.

For all needed information about FM Approved panels, please contact Ruukki Sales.

Application:

- External walls
- Internal walls
- Ceilings



SEND CONTACT REQUEST

Properties

Model name	Sandwich panel SP2E X-PIRS
Standard module width	1100 mm
Optional module width (B)	1000 (D = 120 mm, 140 mm)
Minimum length	2000 mm
Maximum Length	18500 mm
External facing thickness	0.5 mm
Internal facing thickness	0.4 mm
External Fire Exposure	NRO

Thickness D (mm)	**120**	**140**	**160**
Weight (kg/m^2)	13.1	13.9	14.6
U-value (W/m^2K)	0.18	0.15	0.14
Sound insulation Rw (dB)	24	24	24
Reaction to fire	B-s1, d0	B-s1, d0	B-s1, d0
GWP-total, A1-A3 (kg CO_2/m²)	32,6	34,2	35,8
GWP-total, A1-A3 (kg CO_2e/m²) for Ruukki® LowCarbon	-	-	-

Wall fire resistance values & max span horizontal / vertical orientation (m):	**120**	**140**	**160**
EI 15	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5
EI 30	4.0 / 3.0*	7.5 / 3.0*	7.5 / 3.0*
EW 30	7.5 / 7.5	7.5 / 7.5	7.5 / 7.5
EW 45	- / 3.0	- / 3.0	- / 3.0

*Span length for EI30 of FM approved panels is 7.5 (vertical)

Ceiling fire resistance values & maximum span lengths (m):	120	140	160
EI 15 (fire from below)	2.0	2.0	2.0
EI 30 (fire from below)	2.0	2.0	2.0

Ceiling fire resistance ratings are not available for FM approved panels.

Detailed information regarding the application of fire resistance ratings can be obtained from Ruukki Sales.

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

Coatings and colors

Materials

Facing	Coating	Gloss level (GU)	Corrosivity category	UV resistance	Colours
External	GreenCoat Pural BT Satin	20	C4	Ruv4-5	RAL7035 (RR292), RAL9010 (RR126)
External	GreenCoat Pural BT Metallic	40	C4	Ruv4	RAL9006 (RR40), RAL9007 (RR41)
External	Polyester	35	C3	Ruv2-3	RAL1015 (RR807), RAL1021, RAL2003, RAL3000 (RR770), RAL3009 (RR29), RAL3013 (RR774), RAL5003 (RR4F8), RAL5005 (RR4A8), RAL5012 (RR408), RAL6011 (RR526), RAL6018 (RR5G8), RAL7015 (RR23), RAL7016 (RR288), RAL7035 (RR2B1), RAL7040 (RR287), RAL9002 (RR1G6), RAL9003 (RR106), RAL9006 (RR946), RAL9007, RAL9010 (RR1G5), Golden Oak
Internal	Polyester	35	C3	-	RAL9002 (RR1G6), RAL9010 (RR1G5)
Internal	PVC laminate *		C4	-	White

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

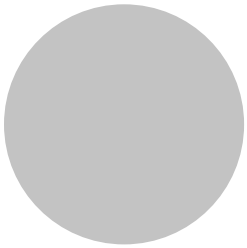
Corrosivity categories describe the outdoor climate conditions in accordance with EN12944. The higher the category, the more corrosive environment.

Primary colors

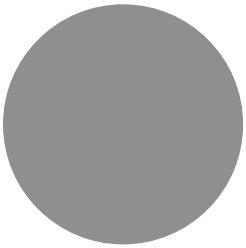
RAL9010 Pure white RR1G5

RAL9002 Grey white RR1G6

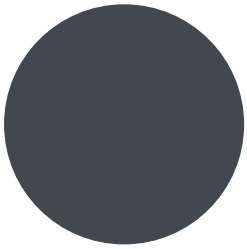
RAL7035 Light grey RR2B1



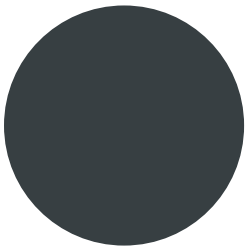
RAL9006 White aluminium RR946



RAL9007 Grey aluminium



RAL7015 Slate grey RR23

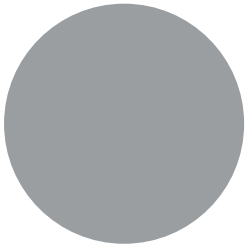


RAL7016 Anthracite grey RR288

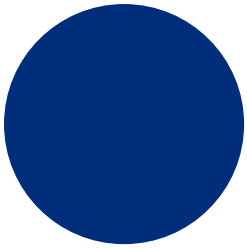
Complementary colors

RAL9003 Signal white RR106

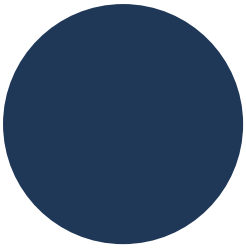
RAL1015 Light ivory RR807



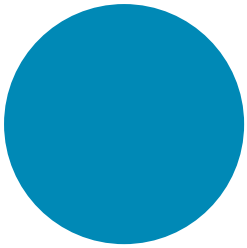
RAL7040 Window grey RR287



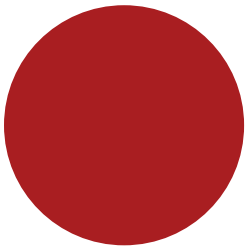
RAL5005 Signal blue



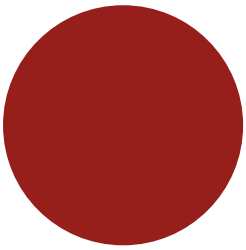
RAL5003 Sapphire blue RR4F8



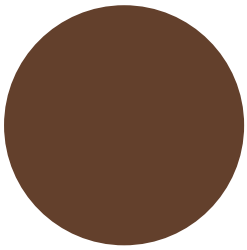
RAL 5012 Light blue RR408



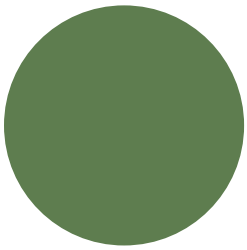
RAL3000 Flame Red RR770



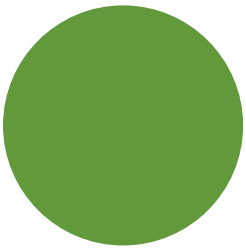
RAL3013 Tomato red RR774



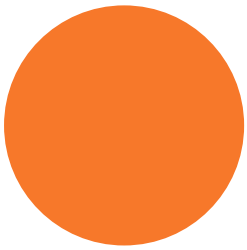
RAL3009 Oxide red RR29



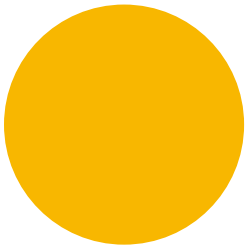
RAL6011 Reseda green RR526



RAL 6018 Yellow green RR5G8



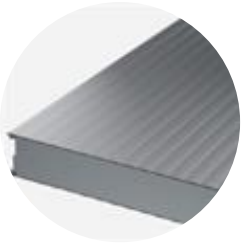
RAL2003 Pastel orange



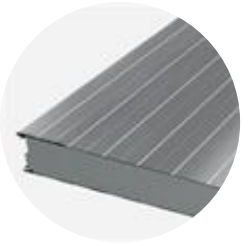
RAL1021 Colza yellow

Golden oak

Profile options



Linear L25



Linear L

Micro M

Modular width	Facing	Profile options
1100mm	External	L, L25, M
	Internal	L25
1000mm	External	L, L25, M
	Internal	L25

Design tools

Traypan® software for designing sandwich panels

With TrayPan®, you can design metal faced sandwich panels made by Ruukki. A panel structure can be designed as a single- or multi-span construction. You can easily give, with a few parameters, both suction and pressure loads caused by the wind. The application also calculates the necessary fasteners.

Go to Traypan®

Download BIM objects to your desktop

ProdLib brings Ruukki products as BIM models directly to your desktop in 3D form for design programs AutoCAD, Autodesk Revit, Archicad and Tekla Structures. Product libraries compile all necessary design models and detailed drawings in one place. Library updates are automatically notified, so as a user you can be sure that your product information is constantly up to date. ProdLib can also be used as a standalone desktop application.

Go to BIM library

Technical documents

Cold storage sandwich panel specific documents

Sandwich panel SP2E cold store EN details
PDF, 0.8 MB

Sandwich panel SP2E cold store EN details
DWG, 0.9 MB

Here you can find all technical documents related to Ruukki's sandwich panels. Documents are organised by document type. Click to enter document library.

Product descriptions

Accessory documents

Load tables

Installation instructions

Maintenance instructions

Sound insulation values

Detail drawings

Certificates and approvals

Here you can find all certificates and approvals related to Ruukki's sandwich panels. Documents are organised by document type. Click to enter document library.

Declaration of performance

Environmental product declaration

Intruder resistance certificate

Visualization tool

Get inspired with our Sandwich Panel visualization tool

With our interactive Visualization tool for Ruukki sandwich panels, you can easily explore and customize the perfect combination for your building project.

Go to visualization tool