

SANDWICH PANEL PWPIR-D



Panels connection scheme

APPLICATION

PWPIR-D roof sandwich panel with a polyisocyanurate (PIR) core is designed for roof coverings. It is characterized by high thermal insulation performance, durability, and enhanced fire resistance properties.

The panel can be used on roofs with a minimum slope of 2.86° (5%) for a continuous covering from the eaves to the ridge, and 5.14° (9%) when panels are joined along their length. Installation is carried out using steel screws, which are fixed through the panel to the building's structure. The PWPIR-D panel is fully compatible with the PWPIR-D LITE roofing panels and is externally compatible with Paneltech roofing panels PWW-D and PWS-D.

The thermal insulation core of the panel is made of rigid polyisocyanurate (PIR) foam with a density of 40 kg/m³. The panel facings consist of profiled, galvanized steel sheets coated with protective paint layers. Along the entire length of the core, a factory-installed polyurethane gasket and aluminum tape ensure optimal sealing.

AVAILABLE PROFILATION TYPES

EXTERNAL PROFILATION

T - TRAPEZOIDAL

INTERNAL PROFILATION

L - LINEAR

R - GROOVE

G - SMOOTH

TABLE OF TECHNICAL PARAMETERS OF THE PWPIR-D PANELS

Parameter	Value						
thickness [mm]	40	60	80	100	120	145	160
modular width [mm]	1050						
length ¹⁾ [mm]	2000 ÷ 16000						
weight ²⁾ [kg/m ²]	10,2	11,0	11,8	12,6	13,4	14,5	15,0
heat transfer coefficient U_c [W/m ² K]	0,49	0,34	0,26	0,21	0,18	0,15	0,14
acoustic insulation R_w [dB]	26						
reaction to fire	B-s1, d0						
resistance to external fire	$B_{roof}(t_1)$ and $B_{roof}(t_2)$ and $B_{roof}(t_3)$						
roof fire rating ³⁾	NPD			REI 30 ³⁾			
anti-corrosive protection	depending on the coating used ⁴⁾						
organic coatings	SP25, PU, AGRO, FOOD SAFE and other ⁴⁾						
external facing	galvanized steel 0,5 ÷ 0,6 mm ⁵⁾						
internal facing	galvanized steel 0,4 ÷ 0,6 mm ⁵⁾						
available profilation types	external facing T; internal facing L, R ⁶⁾ , G ⁶⁾						
insulating core	rigid foam of 40 kg/m ³ in total density and with enclosed cells						
application	non-continuous application on roofs and roof covers						

¹⁾ length depends on the color of the external facing and the thickness of the panel

²⁾ average weight of a sandwich panel with 0.5 mm outer facing, including product tolerance

³⁾ detailed information (including panel layout and support spans) can be found in the General Terms and Conditions of Sale available at paneltech.pl.

⁴⁾ organic coat selected on the basis of durability and application conditions. Coat selection is carried out through environmental assessment and basing on an environmental questionnaire completed by the Client, approved by the steel manufacturer and Paneltech

⁵⁾ other steel types are selected according to application conditions and approved by Paneltech

⁶⁾ facings with the G – smooth or R – groove profiles can include microwaves, which affect the appearance of the product classified as compliant with the requirements of EN 14509, annex D