IZO. PANEL

DECLARATION OF PERFORMANCE

No. 22.04/R PIR-N

1. Unique identification code of the product-type:

IzoRoof PIR-N

2. Intended use/es:

Roofs and roofs cladding

3. Manufacturer:

IZOPANEL Sp. z o.o.
36 Budowlanych Street, Gdańsk 80-298, Poland
Tel.: **+48 58 340 17 17**, Fax: **+48 58 340 17 18**, E-mail: **info@izopanel.pl**

5. System/s of AVCP:

System 3 and 4

6a. Harmonised standard:

EN 14509:2013 „Self-supporting double skin metal faced insulating panels – Factory made products – Specification"

Notified body/ies:

- **Instytut Techniki Budowlanej – Notified Body no. 1488**
- **Polskie Centrum Badań i Certyfikacji S.A. - Notified Body no. 1434**
- **FIRES s.r.o. - Notified Body no. 1396**

7. Declared performance/s:

Essential Characteristics	Performance Characteristics							
Metal faces thickness (external / internal) 0,4 / 0,4 [mm]								
Mechanical Resistance								
Shear strength; f_{cv}[MPa]	≥0,07							
Shear Modulus; G_c [MPa]	≥1,5							
Shear strength after long-term loading; f_{cvt} [MPa]	≥0,03							
Compressive strength; f_{cc} [MPa]	≥0,09							
Cross panel tensile strength; f_{ct} [MPa]	≥0,08							
Bending moment capacity M_u [kNm/m] Side (external/internal)	Panel thickness [mm]	40	60	80	100	120	140	160
	External side	1,43	2,36	3,17	4,21	5,29	4,89	5,78
	Internal side	1,74	2,34	3,00	3,64	4,29	4,95	5,61
Wrinkling stress δ_w [MPa] Side (external/internal)	Panel thickness [mm]	40	60	80	100	120	140	160
	Wrinkling stress	176/93					134/93	
Bending moment capacity over a central support M_u [kNm/m] Side (external/internal)	Panel thickness [mm]	40	60	80	100	120	140	160
	External side	1,74	2,48	3,15	3,58	4,14	4,87	5,40
	Internal side	2,00	2,66	3,36	4,08	4,87	4,47	5,09
Wrinkling stress over a central support δ_w [MPa] Side (external/internal)	Panel thickness [mm]	40	60	80	100	120	140	160
	Wrinkling stress	280/98					280/80	
Creep coefficient								
$\varphi_{t=2000h}$	1,40							
$\varphi_{t=100000h}$	2,16							
Thermal transmittance; U [W/m²K]	Panel thickness [mm]	40	60	80	100	120	140	160
	Thermal transmittance	0,55	0,35	0,27	0,21	0,18	0,16	0,14
Thermal conductivity [$\lambda_{declared}$] [W/mK]	≤0,022							
External fire performance - roofs	B_{ROOF} (t1,t2,t3)							
Reaction to fire	B-s2, d0							

Essential Characteristics	Performance Characteristics							
Fire resistance	Panel thickness [mm]	40	60	80	100	120	140	160
	Fire resistance class	NPD			REI 15			
Flexural tensile strength (ceilings)	NPD							
Water permeability	Class A							
Air permeability	Thrust			Suction				
	n = 0,6443 C = 0,1098			n = 0,4498 C = 0,2433				
Water vapour permeability	Impermeable							
Airborne sound insulation; $R_w(C,C_{tr})$ [dB]	25 (-2,-5)							
Dimensional tolerances	Pass							
Durability	Pass – all colours							
Dangerous substances	NPD							
Metal faces thickness (external / internal) 0,5 / 0,4 [mm]								
Mechanical Resistance								
Shear strength; f_{cv}[MPa]	≥0,1							
Shear Modulus; G_c [MPa]	≥1,5							
Shear strength after long-term loading; f_{cvt} [MPa]	≥0,03							
Compressive strength; f_{cc} [MPa]	≥0,09							
Cross panel tensile strength; f_{ct} [MPa]	≥0,05							
Bending moment capacity M_u [kNm/m] Side (external/internal)	Panel thickness [mm]	40	60	80	100	120	140	160
	External side	1,43	5,52	7,21	8,89	10,58	12,26	13,95
	Internal side	1,74	2,03	2,66	3,28	3,90	4,52	5,14
Wrinkling stress δ_w [MPa] Side (external/internal)	176/86							
Bending moment capacity over a central support M_u [kNm/m] Side (external/internal)	Panel thickness [mm]	40	60	80	100	120	140	160
	External side	1,74	7,37	9,62	11,87	14,12	16,37	18,62
	Internal side	2,00	2,35	3,07	3,79	4,51	5,22	5,94
Wrinkling stress over a central support δ_w [MPa] Side (external/internal)	250/98							
Creep coefficient								
$\varphi_{t=2000h}$	1,40							
$\varphi_{t=100000h}$	2,16							
Thermal transmittance; U [W/m²K]	Panel thickness [mm]	40	60	80	100	120	140	160
	Thermal transmittance	0,55	0,35	0,27	0,21	0,18	0,16	0,14
Thermal conductivity [$\lambda_{declared}$] [W/mK]	≤0,022							
External fire performance - roofs	B_{Roof} (t1,t2,t3)							
Reaction to fire	B-s2, d0							
Fire resistance	Panel thickness [mm]	40	60	80	100	120	140	160
	Fire resistance class	NPD			REI 15			
Flexural tensile strength (ceilings)	NPD							
Water permeability	Class A							
Air permeability	Thrust			Suction				
	n = 0,6443 C = 0,1098			n = 0,4498 C = 0,2433				
Water vapour permeability	Impermeable							
Airborne sound insulation; $R_w(C,C_{tr})$ [dB]	25 (-2,-5)							

Essential Characteristics	Performance Characteristics
Dimensional tolerances	Pass
Durability	Pass – all colours
Dangerous substances	NPD

Website where the copy of the Declaration of Performance is made available:

www.izopanel.pl

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Karol Pawłowski

(name and surname)

Gdańsk, 07.06.2024

(place and date)

(signature)