CE

BALEXMETAL
BUDUJEMY RAZEM
WE BUILD TOGETHER

DECLARATION OF PERFORMANCE

NO. PIR-ST/14509/2020/1

1. **Unique identification code of the product-type:** Wall panel PIR STANDARD (PU-PIR-W-ST)
2. **Intended use/es:** Self-supporting sandwich panels with rigid polyisocyanurate (PIR) foam core as external walls, wall cladding, partition walls and ceilings
3. **Manufacturer BALEX METAL sp. z o.o.:** ul. Wejherowska 12C, 84-239 Bolszewo
4. **System for assessment and verification of functional properties stability:** 3
5. **Harmonised standard:** PN-EN 14509:2013
6. **Notified body/ies:** Instytut Techniki Budowlanej (no. 1488); Warringtonfire (no. 0833); FIRES S.R.O. (no. 1396)
7. **Declared performance/s:** Table 1

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

BALEXMETAL Sp. z o.o.
84-239 Bolszewo, ul. Wejherowska 12C
tel. 58 778-44-44, fax 58 778-44-55
NIP 588-11-30-299
P-191112216

Signed in the name of the manufacturer by:

Certification manager

Wawrzynowicz

Bolszewo, 27 October 2020

dr inż. Adam Wawrzynowicz

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Table 1: Essential characteristics

Panel thickness [mm]			40	50	60	80	100
Cladding steel grade			S250GD, 1.4301				
Type of coating	metallic		Z100, Z185, Z225, Z275, AZ150, AZ185, ZA130, ZA255				
	organic		SP, HDP, PVD(F), PVC(P), PVC(F), PUR				
Cladding thickness	External [mm]		0,5; 0,6; 0,7				
	Internal [mm]		0,4; 0,5; 0,6; 0,7				
Cladding profile types	External		M (Micro-profile), L (Lined), G (Plain), C (Clearline)				
	Internal		L (Lined), G (Plain)				
Core material			PIR				
Nominal core density [kg/m^3]			40				
Mass of panel [kg/m^2]			10,3	10,6	11,1	11,8	12,6
Reaction to fire:			B-s1,d0				
Fire resistance of walls			NPD	NPD	NPD	NPD	EI20/EW30
Tensile strenght fCt [MPa]			0,08				
Shear strenght fCv [MPa]			0,14	0,13	0,13	0,12	0,12
Shear modulus G_C [MPa]			3,5				
Compressive strenght f_{cc} [MPa]			0,13				
Wrinkling strenght	In span:	external cladding [MPa]	M: 249 L: 111 G,C: 83	M: 249 L: 110 G,C: 84	M: 249 L: 109 G,C: 85	M: 249 L: 106 G,C: 87	M: 249 L: 104 G,C: 87
		external cladding at increased temp. [MPa]	M: 227 L: 101 G,C: 76	M: 227 L: 100 G,C: 76	M: 227 L: 99 G,C: 77	M: 227 L: 97 G,C: 79	M: 227 L: 95 G,C: 79
		internal cladding [MPa]	L: 139 G: 83	L: 138 G: 84	L: 136 G: 85	L: 133 G: 87	L: 131 G: 87
	At a support:	external cladding [MPa]	M: 174 L: 78 G,C: 58	M: 174 L: 77 G,C: 58	M: 174 L: 76 G,C: 59	M: 174 L: 75 G,C: 61	M: 174 L: 74 G,C: 61
		external cladding at increased temp. [MPa]	M: 159 L: 71 G,C: 53	M: 159 L: 70 G,C: 53	M: 159 L: 69 G,C: 54	M: 159 L: 68 G,C: 54	M: 159 L: 66 G,C: 55
		internal cladding [MPa]	L: 125 G: 75	L: 121 G: 74	L: 116 G: 72	L: 107 G: 70	L: 99 G: 70
	Correlation coefficient, external cladding		d=0,6mm: 0,88 for L; 0,81 for M d=0,7mm: 0,79 for L; 0,73 for M				

	Correlation coefficient, internal cladding		d=0,5mm: 0,8 for L;
			d=0,6mm: 0,7 for L;
			d=0,7mm: 0,63 for L				

Heat conductivity coefficient λ_D [W/mK]			0,022				
Heat transfer coefficient $U_{d,S}$ [W/m^{2}K]			0,59	0,45	0,36	0,27	0,22
Water permeability [m^3/hm^2]			Class A				
Air permeability [m^3/hm^2]			≤0,2				
Water wapour permeability			Impermeable				
Sound insulation [dB]			R_W≥25, R_{A1}≥23, R_{A2}≥21				
Sound absorbtion			α=0,1				
Durability			Pass DUR 1				