

DECLARATION OF PERFORMANCE No:05/2021

1. Name and unique identification of the construction product type:

Marcegaglia sandwich panels in steel cladding with a core of polyisocyanurate rigid foam
PIR **100F** of thickness: 60, 80, 100 and 120.

2. Intended use or uses:

Insulating-structural sandwich panels in steel cladding are designed for use in buildings as external
walls, internal walls and ceilings.

3. Name and registered address of the manufacturer and place of manufacture of the product:

MARCEGAGLIA POLAND Sp. z o.o.; ul. Kaliska 72; 46 - 320 Praszka
Production Plant in Praszka; ul. Kaliska 72; 46 - 320 Praszka

4. Name and registered address of the authorized representative: Not applicable.

5. Application system for assessment and verification of constancy of performance:

Conformity assessment system 3

6. Harmonized standard:

PN – EN 14509:2013-12

Notified bodies involved in product type testing.

INSTITUTE OF BUILDING TECHNOLOGY in Warsaw No. 1488

FIRES s.r.o. Batizovce No. 1396

CERT-BUD in Warsaw No. 2310

The performance characteristics of the product specified above are in accordance with all the declared performance characteristics listed in subsection 7. This declaration of performance has been issued in accordance with regulation (EU) No. 305/2011 under the sole responsibility of the manufacturer.

7. Declared performance:

Appendix 1

Registered seat:

Marcegaglia Poland Sp. z o.o.
ul. Kaliska 72 • 46-320 Praszka - Poland
C. S. : 108.400.000,00 zł • KRS 0000221496
NIP PL 5761485249 • Regon 532467246

MARCEGAGLIA POLAND

Administration offices and Plant:

ul. Kaliska 72 • 46-320 Praszka - Poland • phone +48 . 34 . 350 15 00 • fax +48 . 34 . 350 15 01
poland@marcegaglia.com • www.marcegaglia.pl

Plant: Ligota Dolna - ul. Przemysłowa, 1 • 46-200 Kluczbork, Poland
phone +48 . 77 . 45 98 200 • fax +48 . 77 . 45 98 201 • kluczbork@marcegaglia.com

Appendix 1 to DoP No.05/2021

Product type	100 F			
Thickness	60	80	100	120
Insulation core	PIR			
Density [kg/m ³]	40 +/- 3			
Weight [kg/ m ²]	11,2	11,9	12,7	13,5
Application	WALLS			
Type and weight of metallic coatings	Z 100, Z 140, Z 187, Z 275			
Thickness of external cladding (tN1)	0,5			
Type of external coating /steel grade	MP1,MP3,MP20,PVC,PVDF, INOX/S 280GD,DX51D			
Thickness of internal cladding (tN1)	0,5			
Type of internal coating / steel grade	MP1,MP3,MP20,PVC,PVDF, INOX/S 280GD,DX51D			
Thermal conductivity coefficient λd (W/mK)	0,022			
Thermal transmittance coefficient Ud, S (W/mK)	0,43	0,29	0,23	0,19
Mechanical resistance				
Tensile strength	≥ 0,100 [MPa]			
Shear strength	≥ 0,100 [MPa]			
Shear modulus of elasticity (core)	≥ 2,00 [MPa]			
Compressive strength (core):	0,095 ÷ 0,230 [MPa]			
Bending resistance in the span				
positive bending [kNm/m]	2,96	3,67	4,59	4,59
positive bending - elevated temperature [kNm/m]	1,21	1,5	1,88	1,88
negative bending [kNm/m]	3,26	3,40	4,26	4,26
negative bending - elevated temperature [kNm/m]	1,34	1,39	1,75	1,75
Bending resistance at an internal support				
positive bending [kNm/m]	4,19	3,72	4,66	4,66
positive bending - elevated temperature [kNm/m]	1,72	1,53	1,91	1,91
negative bending [kNm/m]	4,72	3,84	4,81	4,81
negative bending - elevated temperature [kNm/m]	1,94	1,57	1,97	1,97
Wrinkling strength (external face)				
in the span (MPa)	100	92	92	92
in the span - elevated temperature (MPa)	41	37,72	37,72	37,72
at a support for suction loads (MPa)	159	97	97	97
at a support for suction loads - elevated temperature (MPa)	65,19	39,77	39,77	39,77
Wrinkling strength (internal face)				
in the span (MPa)	110	86	86	86
at an internal support for loads pressing on a support (MPa)	141	94	94	94
Reaction to fire	Bs2d0			
Fire resistance	Horizontal	NPD		
	Vertical	NPD	EI 15	
External fire performance	*			
Water permeability	A			
Air permeability	no leakage			
Airborne sound insulation	26 (-3; -5)			
Sound absorption	0,15			
Durability	satisfactory for all colors			

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Product type	100 F			
Thickness	60	80	100	120
Insulation core	PIR			
Density [kg/m ³]	40 +/- 3			
Weight [kg/ m ²]	10,31	11,07	11,83	12,59
Application	WALLS			
Type and weight of metallic coatings	Z 100, Z 140, Z 187, Z 275			
Thickness of external cladding (tN1)	0,5			
Type of external coating /steel grade	MP1,MP3,MP20,PVC,PVDF, INOX/S 280GD,DX51D			
Thickness of internal cladding (tN1)	0,4			
Type of internal coating / steel grade	MP1,MP3,MP20,PVC,PVDF, INOX/S 280GD,DX51D			
Thermal conductivity coefficient λd (W/mK)	0,022			
Thermal transmittance coefficient Ud, S (W/mK)	0,43	0,29	0,23	0,19
Mechanical resistance				
Tensile strength	≥ 0,100 [MPa]			
Shear strength	≥ 0,100 [MPa]			
Shear modulus of elasticity (core)	≥ 2,00 [MPa]			
Compressive strength (core):	0,095 ÷ 0,230 [MPa]			
Bending resistance in the span				
positive bending [kNm/m]	3,14	4,19	5,28	5,28
positive bending - elevated temperature [kNm/m]	1,29	1,72	2,16	2,16
negative bending [kNm/m]	2,05	2,74	3,23	3,23
negative bending - elevated temperature [kNm/m]	0,84	1,12	1,32	1,32
Bending resistance at an internal support				
positive bending [kNm/m]	2,49	3,33	4,02	4,02
positive bending - elevated temperature [kNm/m]	1,02	1,37	1,65	1,65
negative bending [kNm/m]	3,15	4,21	4,6	4,6
negative bending - elevated temperature [kNm/m]	1,29	1,73	1,89	1,89
Wrinkling strength (external face)				
in the span (MPa)	105	105	106	106
in the span - elevated temperature (MPa)	43,05	43,05	43,46	43,36
at a support for suction loads (MPa)	106	106	92	92
at a support for suction loads - elevated temperature (MPa)	43,36	43,46	37,72	37,72
Wrinkling strength (internal face)				
in the span (MPa)	86	86	81	81
at an internal support for loads pressing on a support (MPa)	105	105	101	101
Reaction to fire	Bs2d0			
Fire resistance	Horizontal	NPD		
	Vertical	NPD	EI 15	
External fire performance	*			
Water permeability	A			
Air permeability	no leakage			
Airborne sound insulation	26 (-3; -5)			
Sound absorption	0,15			
Durability	satisfactory for all colors			

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Additional performance characteristics not included in the list of characteristics according to the PN-EN 14509 NRO standard - fire classification with regard to lack of fire propagation through walls when exposed to fire from the outside in accordance with the PN-B-02867:2013-06 standard

PRASZKA, 20.12.2021
(place and date of issue)

MARCEGAGLIA POLAND Sp. z o.o.
Filippo Nicoli
Członek Zarządu

.....
(name and signature of authorized person)



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