

DECLARATION OF PERFORMANCE No:07/2021

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

Marcegaglia sandwich panels in steel cladding with a core of polyisocyanurate rigid foam
PIR HPTTD5 of thickness: 40, 50, 60, 80, 100, 120 and 140 mm.

2. Intended use or uses:

Insulating-structural sandwich panels in steel cladding are designed for use in buildings as roofs and
roof cladding.

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

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.07/2021

Product type	HPTTD5						
Thickness	40	50	60	80	100	120	140
Insulation core	PIR						
Density [kg/m ³]	40 +/- 3						
Weight [kg/ m ²]	10,9	11,3	11,7	12,4	13,2	14	14,7
Application	ROOFS						
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)	0,53	0,43	0,36	0,27	0,21	0,18	0,15
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]						
Creep coefficient 2000h	0,74						
Creep coefficient 100 000h	1,15						
Bending resistance in the span							
positive bending [kNm/m]	3,13	3,34	3,61	6,6	6,61	7,62	7,62
positive bending - elevated temperature [kNm/m]	1,28	1,37	1,48	2,71	2,71	3,12	3,12
negative bending [kNm/m]	2,20	2,56	2,83	2,89	3,41	2,7	2,7
negative bending - elevated temperature [kNm/m]	0,9	1,05	1,16	1,18	1,4	1,11	1,11
Bending resistance at an internal support							
positive bending [kNm/m]	1,43	1,69	1,94	3,43	4,09	2,96	2,96
positive bending - elevated temperature [kNm/m]	0,59	0,69	0,8	1,41	1,68	1,21	1,21
negative bending [kNm/m]	3,25	3,83	4,00	4,04	4,82	7,56	7,56
negative bending - elevated temperature [kNm/m]	1,33	1,57	1,64	1,66	1,98	3,1	3,1
Wrinkling strength (external face)							
in the span (MPa)	NPD						
in the span - elevated temperature (MPa)	NPD						
at an internal support for uplift loads (MPa)	NPD						
at an internal support for uplift loads - elevated temperature (MPa)	NPD						
Wrinkling strength (internal face)							
in the span (MPa)	89	89	89	73	73	50	50
at an internal support for loads pressing on a support (MPa)	68	68	68	89	89	56	58
Reaction to fire	Bs2d0						
Fire resistance	NPD	NPD	RE 90/REI 20		REI 30		
External fire performance	B _{roof} (t1, t2, t3)						
Water permeability	A						
Air permeability	no leakage						
Airborne sound insulation	25 (-1; -3)						
Sound absorption	0,15						
Resistance to point load 1,2 kN	lack of permanent damage, even deformation.						
Durability	satisfactory for all colors						

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Weight [kg/ m ²]	10,65	11,03	11,42	12,17	12,93	13,69	14,45
Application	ROOFS						
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)	0,53	0,43	0,36	0,27	0,21	0,18	0,15
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]						
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in the span (MPa)	NPD						
in the span - elevated temperature (MPa)	NPD						
at an internal support for uplift loads (MPa)	NPD						
at an internal support for uplift loads - elevated temperature (MPa)	NPD						
Wrinkling strength (internal face)							
in the span (MPa)	89	89	89	73	73	50	50
at an internal support for loads pressing on a support (MPa)	68	68	68	89	89	56	58
Reaction to fire	Bs2d0						
Fire resistance	NPD	NPD	RE 90/REI 20		REI 30		
External fire performance	B _{roof} (t1, t2, t3)						
Water permeability	A						
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 **MARCEGAGLIA**
CARBON STEEL

MARCEGAGLIA POLAND Sp. z o.o.

Filippo Nicoli
Członek Zarządu

PRASZKA, 20.12.2021
(place and date of issue)

(name and signature of authorized person)

CE

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