

This declaration of performance concerns to **GS PIR D MAX** products -- Self-supporting double skin metal faced insulating panels with PIR core (galvanized steel faces, yield strength ≥ 220 N/mm²), thickness (outer/inner) min. 0,4 / 0,4 mm and for all organic coatings. Modular width: 1000 mm. Facing profile: outer: T(trapezoidal 40mm), inner: L(linear), G or P (smooth). Certificate of constancy of performance no. 1487-CPR-174-02 issued by notified body ICiMB (no. 1487).



DECLARATION OF PERFORMANCE

no. D/MAX/02/2020



Unique identification code of the product-type:

GS PIR D [thickness d_N] **MAX** [modular width: 1000] [outer/inner profilation: T / L, P]

Harmonised standard: EN 14509:2013

System/s of AVCP: System 1

Notified body/ies: ICiMB (Nr 1487), FIRES (Nr 1396)

Intended use/es: Roofs

Manufacturer: GÓR-STAL Sp. z o.o., ul. Przemysłowa 11, 38-300 Gorlice, POLAND

Declared performance/s:

| Unique identification code of the product-type | | GS PIR D80 MAX | GS PIR D100 MAX | GS PIR D120 MAX | GS PIR D160 MAX | Classification | |
|---|-----|---|--|-----------------|-----------------|---|-------|
| | | module: 1000, profilation: T / L, P | | | | | |
| Thickness | | 80/120 mm | 100/140 mm | 120/160 mm | 160/200 mm | | |
| Essential characteristics / Parameters | | Value of parameters | | | | | |
| Thermal properties | | | | | | | |
| Thermal conductivity, λ_D | | W/m·K | | | | 0,020 | |
| Thermal transmittance, $U_{d,s}$ | | W/m ² ·K | | 0,25 | 0,20 | 0,17 | 0,13 |
| Mechanical properties | | | | | | | |
| Compressive strength (core) | | MPa | | 0,10 | | | |
| Tensile strength | | MPa | | 0,06 | | | |
| Shear strength | | MPa | | 0,100 | 0,100 | 0,100 | 0,080 |
| Shear modulus (core) | | MPa | | 3,00 | 2,90 | 2,80 | 2,40 |
| Bending resistance in the span | (+) | ambient temperature | kN·m | 5,40 | 5,80 | 8,20 | 8,00 |
| Bending resistance in the span | (-) | | | 6,80 | 5,70 | 6,70 | 5,20 |
| Bending resist. at internal support | (+) | ambient temperature | kN·m | 4,70 | 4,60 | 5,40 | 6,10 |
| Bending resist. at internal support | (-) | | | 4,40 | 5,30 | 6,40 | 7,20 |
| Bending resistance in the span | (+) | elevated temperature | kN·m | 4,10 | 4,41 | 6,23 | 6,08 |
| Bending resistance in the span | (-) | | | 5,17 | 4,33 | 5,09 | 3,95 |
| Bending resist. at internal support | (+) | elevated temperature | kN·m | 3,57 | 3,50 | 4,10 | 4,64 |
| Bending resist. at internal support | (-) | | | 3,34 | 4,03 | 4,86 | 5,47 |
| Creep coefficient | | for $t=2.000h$: 0,67 (for 0,5/0,5); 0,79 (for 0,5/0,4); 0,91 (for 0,4/0,4) | | | | 0,69 | |
| | | for $t=100.000h$: 1,09 (for 0,5/0,5); 1,14 (for 0,5/0,4); 1,33 (for 0,4/0,4) | | | | 0,83 | |
| Reduced long term shear strength (40%) | | MPa | | 0,040 | 0,040 | 0,040 | 0,034 |
| Resistance to point loads | | | | | | 1,2 kN | |
| Resistance to access loads | | | | | | NPD | |
| Reaction to fire (all applications) | | | | | | B-s1,d0 | |
| Fire resistance (details in the classification) | | NPD | | RE 30 | | | |
| External fire performance | | | | | | B_{roof} | |
| Water permeability | | | | | | Class A | |
| Water vapour permeability | | | | | | „Impermeable” | |
| Air permeability | | (+) | C=0,0046 m ³ /(hPa·n), n=1,2421 (0,7 [m ³ /m ² ·h] for $\Delta p=50$ [kPa]) | | | | |
| | | (-) | C=0,0033 m ³ /(hPa·n), n=1,0658 (0,2 [m ³ /m ² ·h] for $\Delta p=50$ [kPa]) | | | | |
| Airborne sound insulation | | | | | | 24(-1,-3) (for 0,5/0,5 & 0,5/0,4); 24(-2,-4) (for 0,4/0,4); [dB] | |
| Sound absorption | | | | | | 0,1 dB | |
| Dimensional tolerances | | | | | | „Pass” (Thickness: $\pm 2mm$ for $\leq 100mm$ and 2% for $\geq 100mm$) | |
| Durability – all colours | | | | | | „Pass” | |
| Dengerous substances | | | | | | NPD | |

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.

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Gorlice, 20.07.2020
place and date of issue

signed for and behalf of the manufacturer by