TENAXPANEL

# DECLARATION OF PERFORMANCE
## No 2S-S5P0-005
According to Regulation No 305/2011

| | |
|---|---|
| Unique identification code of the product-type: | **Self-supporting double skin metal faced insulating panels (sandwich panels) TENAX with MW core** |
| Product name: | **TENAX W50 MW Strong S2**<br>**TENAX W80 MW Strong S2**<br>**TENAX W100 MW Strong T2**<br>**TENAX W120 MW Strong T2**<br>**TENAX W150 MW Strong T2**<br>**TENAX W175 MW Strong T2**<br>**TENAX W200 MW Strong T2**<br>**TENAX W240 MW Strong T2**<br>**TENAX W300 MW Strong T2** |
| Intended use: | **for use in internal and external walls, wall claddings and ceilings in the buildings** |
| Manufacturer: | **TENAX PANEL, SIA**<br>Spodrības 1, Dobele, Latvia, LV- 3701 |
| System/s of AVCP: | Scheme 1 (Reaction to fire)<br>Scheme 3 (Fire resistance)<br>Scheme 4 |
| Harmonised standard: | EN 14509:2013 |
| Notified body/ies: | No 1325 - AS Inspecta Latvia, Skanstes Str. 54A, LV-1013, Riga, Latvia<br>No 1396 – FIRES s.r.o., Osloboditelov 282, 059 35, Batizovice, Slovakia |

The performance of the product identified above is in conformity with the set of declared performance/s (see attachments No 1 and No 2). 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:
TENAX PANEL, SIA Project Manager

.....

Baiba Cimermane
05.09.2023.



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## Declaration of Performance No 2S-S5P0-005, Annex 1

Sandwich panels TENAX W50 Strong MW S2, TENAX W80 Strong MW S2

| Year when CE mark was affixed | 19 | |
|---|---|---|
| **Essential characteristics** | **Performance** | |
| **Metal facings** | | |
| Thickness of external facing, mm | 0,5; 0,6; 0,7 | |
| Thickness of internal facing, mm | 0,5; 0,6; 0,7 | |
| Steel name | S280GD; S320GD | |
| Organic coating type and thickness | SP25; PVDF35; PVC150 | |
| **Core material** | | |
| MW density, kg/m³ | 120 | |
| Thermal conductivity, W/m·K | 0,045 | |
| **Panel** | | |
| Thickness, mm | | |
| - declared | 50 | 80 |
| - nominal | 50 | 80 |
| Panel weight, kg/m² (metal thickness 0,5/0,5 mm) | 15,1 | 18,7 |
| Shear modules of the core material, MPa | 5,5 | 5,5 |
| Shear strength of the panel, MPa | 0,075 | 0,075 |
| Long term shear strength, MPa | 0,030 | 0,030 |
| Creep coefficient | | |
| - $t$ = 2 000 h | 0,4 | 0,4 |
| - $t$ = 100 000 h | 0,6 | 0,6 |
| Compressive strength of the core material, MPa | 0,13 | 0,13 |
| Cross-panel tensile strength, MPa | 0,16 | 0,16 |
| Wrinkling stress for inner face | | |
| - in span | 130 | 130 |
| - for loads pressing at an internal support | 100 | 100 |
| Wrinkling stress for outer face, MPa | | |
| - in span | 130 | 130 |
| - in span at elevated temperature | 120 | 120 |
| - at an internal support | 100 | 100 |
| - at an internal support at elevated temperature | 100 | 100 |
| Thermal transmittance, W/m²·K | 0,85 | 0,53 |
| Durability | Pass - all colours | Pass - all colours |
| Resistance to point loads | NPD | NPD |
| Resistance to access loads, kPa | NPD | NPD |
| Reaction to fire | A2-s1,d0 | A2-s1,d0 |
| Fire resistance for walls | | |
| - horizontal installation | NPD | NPD |
| - vertical installation | NPD | NPD |
| Fire resistance for ceilings | NPD | NPD |
| Water permeability | NPD | NPD |
| Air permeability | NPD | NPD |
| Airborne sound insulation | NPD | NPD |
| Sound absorption | NPD | NPD |



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## Declaration of Performance No 2S-S5P0-005, Annex 2

Sandwich panels TENAX W100 MW Strong T2, TENAX W120 MW Strong T2, TENAX W150 MW Strong T2, TENAX W175 MW Strong T2, TENAX W200 MW Strong T2, TENAX W240 MW Strong T2, TENAX W300 MW Strong T2

| Year when CE mark was affixed | 19 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Essential characteristics** | **Performance** | | | | | | |
| **Metal facings** | | | | | | | |
| Thickness of external facing, mm | 0,5; 0,6; 0,7 | | | | | | |
| Thickness of internal facing, mm | 0,5; 0,6; 0,7; 0,8 | | | | | | |
| Steel name | S280GD; S320GD | | | | | | |
| Organic coating type and thickness | SP25; PVDF35; PVC150 | | | | | | |
| **Core material** | | | | | | | |
| MW density, kg/m$^3$ | 120 | | | | | | |
| Thermal conductivity, W/m·K | 0,045 | | | | | | |
| **Panel** | | | | | | | |
| Thickness, mm | | | | | | | |
| - declared | 100 | 120 | 150 | 175 | 200 | 240 | 300 |
| - nominal | 100 | 120 | 150 | 175 | 203 | 240 | 300 |
| Panel weight, kg/m$^2$ (metal thickness 0,5/0,5 mm) | 21,1 | 23,5 | 27,1 | 30,1 | 33,5 | 37,9 | 45,1 |
| Shear modules of the core material, MPa | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 | 5,5 |
| Shear strength of the panel, MPa | 0,075 | 0,075 | 0,075 | 0,075 | 0,070 | 0,070 | 0,060 |
| Long term shear strength, MPa | 0,030 | 0,030 | 0,030 | 0,030 | 0,030 | 0,030 | 0,024 |
| Creep coefficient | | | | | | | |
| - $t$ = 2 000 h | 0,3 | 0,3 | 0,3 | 0,3 | 0,3 | 0,3 | 0,3 |
| - $t$ = 100 000 h | 0,4 | 0,4 | 0,4 | 0,4 | 0,4 | 0,4 | 0,4 |
| Compressive strength of the core material, MPa | 0,13 | 0,13 | 0,13 | 0,13 | 0,13 | 0,13 | 0,12 |
| Cross-panel tensile strength, MPa | 0,16 | 0,16 | 0,16 | 0,16 | 0,15 | 0,15 | 0,14 |
| Wrinkling stress for inner face | | | | | | | |
| - in span | 130 | 130 | 130 | 130 | 120 | 120 | 110 |
| - for loads pressing at an internal support | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Wrinkling stress for outer face, MPa | | | | | | | |
| - in span | 130 | 130 | 130 | 130 | 120 | 120 | 110 |
| - in span at elevated temperature | 120 | 120 | 120 | 120 | 100 | 100 | 100 |
| - at an internal support | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| - at an internal support at elevated temperature | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Thermal transmittance, W/m$^2$·K | 0,43 | 0,36 | 0,29 | 0,25 | 0,22 | 0,18 | 0,15 |
| Durability | Pass - all colours | Pass - all colours | Pass - all colours | Pass - all colours | Pass - all colours | Pass - all colours | Pass - all colours |
| Resistance to point loads | NPD | NPD | NPD | NPD | NPD | NPD | NPD |
| Resistance to access loads, kPa | NPD | NPD | NPD | NPD | NPD | NPD | NPD |
| Reaction to fire | A2-s1,d0 | A2-s1,d0 | A2-s1,d0 | A2-s1,d0 | A2-s1,d0 | A2-s1,d0 | A2-s1,d0 |
| Fire resistance for walls | | | | | | | |
| - horizontal installation | EI90 | EI90 | EI180 | EI180 | EI180 | EI180 | EI180 |
| - vertical installation | EI60 | EI60 | EI120 | EI120 | EI120 | EI120 | EI120 |
| Fire resistance for ceilings | NPD | NPD | NPD | NPD | NPD | NPD | NPD |
| Water permeability | NPD | NPD | NPD | NPD | NPD | NPD | NPD |
| Air permeability | NPD | NPD | NPD | NPD | NPD | NPD | NPD |
| Airborne sound insulation | NPD | NPD | NPD | NPD | NPD | NPD | NPD |
| Sound absorption | NPD | NPD | NPD | NPD | NPD | NPD | NPD |



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