

**DECLARATION OF PERFORMANCE**  
**No 2S-T4X3-005**  
According to regulation No 305/2011

Unique identification code of the product-type:	<b>Self - supporting double skin metal faced insulating panels (sandwich panels) TENAX with PIR core</b>
Product name:	<b>TENAX TR50 PIR S11 TENAX TR80 PIR S11 TENAX TR100 PIR S11 TENAX TR120 PIR S11 TENAX TR150 PIR S11 TENAX TR200 PIR S11</b>
Intended use:	<b>for roofs and roof claddings</b>
Manufacturer:	<b>TENAX PANEL, SIA</b> Spodriibas 1, Dobeles, Latvia, LV- 3701
System/s of AVCP:	Scheme 1 (Reaction to fire) Scheme 4
Harmonised standard:	EN 14509:2013
Notified body/ies:	No 1325 - AS Inspecta Latvia, Skanstes Str. 54A, LV-1013, Riga, Latvia

The performance of the product identified above is in conformity with the set of declared performance/s (see attachment No 1).

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 Product development director

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Uldis Reknars  
02.01.2019.



**Declaration of Performance No 2S-T4X3-005, Annex 1**
**Sandwich panels TENAX TR50 PIR S11, TENAX TR80 PIR S11, TENAX TR100 PIR S11, TENAX TR120 PIR S11, TENAX TR150 PIR S11, TENAX TR200 PIR S11**

Year when CE mark was affixed	16					
Essential characteristics	Performance					
<b>Metal facings</b>						
Thickness of external facing, mm	0,5; 0,6; 0,7					
Thickness of internal facing, mm	0,5; 0,6; 0,7					
Steel name	S250GD; S280GD; S320GD					
Organic coating type and thickness	SP25; PVDF35					
<b>Core material</b>						
PIR density, kg/m <sup>3</sup>	40					
Thermal conductivity, W/m·K	0,021					
<b>Panel</b>						
Thickness, mm	50	80	100	120	150	200
Panel weight, kg/m <sup>2</sup> (metal thickness 0,5/0,5 mm)	11,9	13,2	14,0	14,9	16,1	18,2
Shear modules of the core material, MPa	3,2	3,0	3,0	2,7	2,5	2,4
Shear strength of the panel, MPa	0,12	0,12	0,11	0,11	0,11	0,10
Long term shear strength, MPa	0,055	0,055	0,055	0,045	0,045	0,035
Creep coefficient						
- t = 2 000 h	1,60	1,60	1,60	1,60	1,60	1,60
- t = 100 000 h	2,55	2,55	2,55	2,55	2,55	2,55
Compressive strength of the core material, MPa	0,11	0,11	0,11	0,11	0,11	0,11
Cross-panel tensile strength, MPa	0,08	0,08	0,08	0,08	0,07	0,06
Wrinkling stress for inner face						
- in span	90	90	90	90	90	90
- for loads pressing at an internal support	70	70	70	70	70	70
Wrinkling stress for outer face, MPa						
- in span	130	140	140	130	140	150
- in span at elevated temperature	130	140	140	130	140	150
- for loads suction at an internal support	120	130	130	120	120	120
- for loads suction at an internal support at elevated temperature	120	130	130	120	120	120
Thermal transmittance, W/m <sup>2</sup> ·K	0,40	0,25	0,20	0,17	0,14	0,10
Durability	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
Resistance to access loads, kPa	pass	pass	pass	pass	pass	pass
Reaction to fire	B-s2,d0	B-s2,d0	B-s2,d0	B-s2,d0	B-s2,d0	B-s2,d0
Fire resistance	NPD	NPD	NPD	NPD	NPD	NPD
External fire performance	B <sub>ROOF</sub> (t1)	B <sub>ROOF</sub> (t1)	B <sub>ROOF</sub> (t1)	B <sub>ROOF</sub> (t1)	B <sub>ROOF</sub> (t1)	B <sub>ROOF</sub> (t1)
Water permeability	NPD	NPD	NPD	NPD	NPD	NPD
Air permeability	NPD	NPD	NPD	NPD	NPD	NPD
Airborne sound insulation	NPD	NPD	NPD	NPD	NPD	NPD

**Declaration of Performance No 2S-T4X3-005, Annex 2**
**Sandwich panels TENAX TR50 PIR S11, TENAX TR80 PIR S11, TENAX TR100 PIR S11, TENAX TR120 PIR S11, TENAX TR150 PIR S11, TENAX TR200 PIR S11**

Year when CE mark was affixed	16					
<b>Essential characteristics</b>	<b>Performance</b>					
<b>Metal facings</b>						
Thickness of external facing, mm	0,5; 0,6; 0,7					
Thickness of internal facing, mm	0,4					
Steel name	S250GD; S280GD; S320GD					
Organic coating type and thickness	SP25; PVDF35					
<b>Core material</b>						
PIR density, kg/m <sup>3</sup>	40					
Thermal conductivity, W/m·K	0,021					
<b>Panel</b>						
Thickness, mm	50	80	100	120	150	200
Panel weight, kg/m <sup>2</sup> (metal thickness 0,5/0,5 mm)	11,9	13,2	14,0	14,9	16,1	18,2
Shear modules of the core material, MPa	3,2	3,0	3,0	2,7	2,5	2,4
Shear strength of the panel, MPa	0,12	0,12	0,11	0,11	0,11	0,10
Long term shear strength, MPa	0,055	0,055	0,055	0,045	0,045	0,035
Creep coefficient						
- t = 2 000 h	1,60	1,60	1,60	1,60	1,60	1,60
- t = 100 000 h	2,55	2,55	2,55	2,55	2,55	2,55
Compressive strength of the core material, MPa	0,11	0,11	0,11	0,11	0,11	0,11
Cross-panel tensile strength, MPa	0,08	0,08	0,08	0,08	0,07	0,06
Wrinkling stress for inner face						
- in span	90	90	90	90	90	90
- for loads pressing at an internal support	70	70	70	70	70	70
Wrinkling stress for outer face, MPa						
- in span	130	140	140	130	140	150
- in span at elevated temperature	130	140	140	130	140	150
- for loads suction at an internal support	120	130	130	120	120	120
- for loads suction at an internal support at elevated temperature	120	130	130	120	120	120
Thermal transmittance, W/m <sup>2</sup> ·K	0,40	0,25	0,20	0,17	0,14	0,10
Durability	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
Resistance to access loads, kPa	pass	pass	pass	pass	pass	pass
Reaction to fire	NPD	NPD	NPD	NPD	NPD	NPD
Fire resistance	NPD	NPD	NPD	NPD	NPD	NPD
External fire performance	B <sub>ROOF(t1)</sub>	B <sub>ROOF(t1)</sub>	B <sub>ROOF(t2)</sub>	B <sub>ROOF(t1)</sub>	B <sub>ROOF(t1)</sub>	B <sub>ROOF(t1)</sub>
Water permeability	NPD	NPD	NPD	NPD	NPD	NPD
Air permeability	NPD	NPD	NPD	NPD	NPD	NPD
Airborne sound insulation	NPD	NPD	NPD	NPD	NPD	NPD