TENAXPANEL

DECLARATION OF PERFORMANCE
No 1S-T5M0-003
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 TR80 MW S10**, **TENAX TR85 MW S10**, **TENAX TR90 MW S10**, **TENAX TR95 MW S10**, **TENAX TR100 MW S10**, **TENAX TR105 MW S10**, **TENAX TR110 MW S10**, **TENAX TR115 MW S10**, **TENAX TR120 MW S10**, **TENAX TR125 MW S10**, **TENAX TR130 MW S10**, **TENAX TR135 MW S10**, **TENAX TR140 MW S10**, **TENAX TR145 MW S10**, **TENAX TR150 MW S10**, **TENAX TR155 MW S10**, **TENAX TR160 MW S10**, **TENAX TR165 MW S10**, **TENAX TR170 MW S10**, **TENAX TR175 MW S10**, **TENAX TR180 MW S10**, **TENAX TR185 MW S10**, **TENAX TR190 MW S10**, **TENAX TR195 MW S10**, **TENAX TR200 MW S10**, **TENAX TR205 MW S10**, **TENAX TR210 MW S10**, **TENAX TR215 MW S10**, **TENAX TR220 MW S10**, **TENAX TR225 MW S10**, **TENAX TR230 MW S10**, **TENAX TR235 MW S10**, **TENAX TR240 MW S10**
Intended use:	**for roofs and roof claddings**
Manufacturer:	**TENAX PANEL, SIA,** Spodrības 1, Dobele, Latvia, LV- 3701
System/s of AVCP:	Scheme 1 (reaction to fire) Scheme 4
Harmonised standard:	EN 14509:2013
Notified Body:	No 1325 - AS Inspecta Latvia, Skanstes 54A, LV-1013, Riga, Latvia

The performance of the product identified above is in conformity with the set of declared performance/s (see attachments No 1, No 2, No 3 and No 4).
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

.....
Uldis Rekners
19.02.2019.

TENAX GRUPA, TENAX PANEL SIA
Spodrības iela 1, Dobele,
LV3701, Latvija
Reģ. Nr. LV40203186964

Tenaxpanel@tenaxgrupa.lv
T: +371 63720957
M: +371 27777752
www. tenaxpanel.com

Declaration of Performance No 1S-T5M0-003, Annex 1
Sandwich panels TENAX TR80 MW S10, TENAX TR85 MW S10, TENAX TR90 MW S10, TENAX TR95 MW S10

Year when CE mark was affixed	10			
Essential characteristics	**Performance**			
Metal facings				
Thickness, mm	0,5; 0,6			
Steel name	S250GD; S280GD; S320GD			
Organic coating type and thickness	SP25; PVDF35			
Core material				
MW density, kg/m^3	105			
Thermal conductivity, W/m·K	0,042			
Panel				
Thickness, mm	80	85	90	95
Panel weight, kg/m^2 (metal thickness 0,5/0,5 mm)	18,9	19,4	19,9	20,4
Shear modules of the core material, MPa	3,5	3,5	3,5	3,5
Shear strength of the panel, MPa	0,04	0,04	0,04	0,04
Long term shear strength, MPa	0,02	0,02	0,02	0,02
Creep coefficient				
- t = 2 000 h	0,4	0,4	0,4	0,4
- t = 100 000 h	0,6	0,6	0,6	0,6
Compressive strength of the core material, MPa	0,10	0,10	0,10	0,10
Cross-panel tensile strength, MPa	0,08	0,08	0,08	0,08
Wrinkling stress for inner face				
- in span	100	100	100	100
- for loads pressing at an internal support	90	90	90	90
Wrinkling stress for outer face, MPa				
- in span	100	100	100	100
- in span at elevated temperature	95	95	95	95
- for loads suction at an internal support	90	90	90	90
- for loads suction at an internal support at elevated temperature	85	85	85	85
Thermal transmittance, W/m^2·K	0,49	0,46	0,44	0,42
Durability	Pass – all colours	Pass – all colours	Pass – all colours	Pass – all colours
Resistance to point loads	NPD	NPD	NPD	NPD
Resistance to access loads, kPa	NPD	NPD	NPD	NPD
Reaction to fire	A2-s1,d0	A2-s1,d0	A2-s1,d0	A2-s1,d0
Fire resistance	NPD	NPD	NPD	NPD
External fire performance	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$
Water permeability	NPD	NPD	NPD	NPD
Air permeability	NPD	NPD	NPD	NPD
Airborne sound insulation	NPD	NPD	NPD	NPD

TENAX GRUPA, TENAX PANEL SIA
Spodrības iela 1, Dobele,
LV3701, Latvija
Reģ. Nr. LV40203186964

Tenaxpanel@tenaxgrupa.lv
T: +371 63720957
M: +371 27777752
www. tenaxpanel.com

Declaration of Performance No 1S-T5M0-003, Annex 2
Sandwich panels TENAX TR100 MW S10, TENAX TR105 MW S10, TENAX TR110 MW S10, TENAX TR115 MW S10, TENAX TR120 MW S10, TENAX TR125 MW S10, TENAX TR130 MW S10, TENAX TR135 MW S10, TENAX TR140 MW S10, TENAX TR145 MW S10

Year when CE mark was affixed	10									
Essential characteristics	**Performance**									
Metal facings										
Thickness, mm	0,5; 0,6									
Steel name	S250GD; S280GD; S320GD									
Organic coating type and thickness	SP25; PVDF35									
Core material										
MW density, kg/m³	105									
Thermal conductivity, W/m·K	0,042									
Panel										
Thickness, mm	100	105	110	115	120	125	130	135	140	145
Panel weight, kg/m² (metal thickness 0,5/0,5 mm)	21,0	21,5	22,0	22,5	23,1	23,6	24,1	24,6	25,2	25,7
Shear modules of the core material, MPa	3,0	3,0	3,0	3,0	2,5	2,5	2,5	2,5	2,5	2,5
Shear strength of the panel, MPa	0,040	0,040	0,040	0,040	0,040	0,040	0,040	0,040	0,040	0,040
Long term shear strength, MPa	0,020	0,020	0,020	0,020	0,020	0,020	0,020	0,020	0,020	0,020
Creep coefficient										
- t = 2 000 h	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40
- t = 100 000 h	0,60	0,60	0,60	0,60	0,60	0,60	0,60	0,60	0,60	0,60
Compressive strength of the core material, MPa	0,10	0,10	0,10	0,10	0,10	0,10	0,10	0,10	0,10	0,10
Cross-panel tensile strength, MPa	0,07	0,07	0,07	0,07	0,07	0,07	0,07	0,07	0,07	0,07
Wrinkling stress for inner face										
- in span	110	110	110	110	110	110	110	110	110	110
- for loads pressing at an internal support	100	100	100	100	100	100	100	100	100	100
Wrinkling stress for outer face, MPa										
- in span	170	170	170	170	170	170	170	170	170	170
- in span at elevated temperature	170	170	170	170	170	170	170	170	170	170
- for loads suction at an internal support	170	170	170	170	170	170	170	170	170	170
- for loads suction at an internal support at elevated temperature	170	170	170	170	170	170	170	170	170	170
Thermal transmittance, W/m²·K	0,40	0,38	0,36	0,35	0,33	0,32	0,31	0,30	0,29	0,28
Durability	Pass – all colours	Pass – all colours	Pass – all colours	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	NPD	NPD	NPD
Resistance to access loads, kPa	NPD	NPD	NPD	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	A2-s1,d0	A2-s1,d0	A2-s1,d0
Fire resistance	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD
External fire performance	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$
Water permeability	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD
Air permeability	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD
Airborne sound insulation	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD

TENAX GRUPA, TENAX PANEL SIA
Spodrības Iela 1, Dobele,
LV3701, Latvija
Reģ. Nr. LV40203186964

Tenaxpanel@tenaxgrupa.lv
T: +371 63720957
M: +371 27777752
www. tenaxpanel.com

Declaration of Performance No 1S-T5M0-003, Annex 3
Sandwich panels TENAX TR150 MW S10, TENAX TR155 MW S10, TENAX TR160 MW S10, TENAX TR165 MW S10, TENAX TR170 MW S10, TENAX TR175 MW S10, TENAX TR180 MW S10, TENAX TR185 MW S10, TENAX TR190 MW S10, TENAX TR195 MW S10

Year when CE mark was affixed	10									
Essential characteristics	**Performance**									
Metal facings										
Thickness, mm	0,5; 0,6									
Steel name	S250GD; S280GD; S320GD									
Organic coating type and thickness	SP25; PVDF35									
Core material										
MW density, kg/m³	105									
Thermal conductivity, W/m·K	0,042									
Panel										
Thickness, mm	150	155	160	165	170	175	180	185	190	195
Panel weight, kg/m² (metal thickness 0,5/0,5 mm)	26,2	26,7	27,3	27,8	28,3	28,8	29,4	29,9	30,4	30,9
Shear modules of the core material, MPa	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
Shear strength of the panel, MPa	0,040	0,040	0,040	0,040	0,040	0,040	0,040	0,040	0,040	0,040
Long term shear strength, MPa	0,020	0,020	0,020	0,020	0,020	0,020	0,020	0,020	0,020	0,020
Creep coefficient										
- t = 2 000 h	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40
- t = 100 000 h	0,60	0,60	0,60	0,60	0,60	0,60	0,60	0,60	0,60	0,60
Compressive strength of the core material, MPa	0,10	0,10	0,10	0,10	0,10	0,10	0,10	0,10	0,10	0,10
Cross-panel tensile strength, MPa	0,07	0,07	0,07	0,07	0,07	0,07	0,07	0,07	0,07	0,07
Wrinkling stress for inner face										
- in span	110	110	110	110	110	110	110	110	110	110
- for loads pressing at an internal support	100	100	100	100	100	100	100	100	100	100
Wrinkling stress for outer face, MPa										
- in span	160	160	160	160	160	160	160	160	160	160
- in span at elevated temperature	160	160	160	160	160	160	160	160	160	160
- for loads suction at an internal support	160	160	160	160	160	160	160	160	160	160
- for loads suction at an internal support at elevated temperature	160	160	160	160	160	160	160	160	160	160
Thermal transmittance, W/m²·K	0,27	0,26	0,25	0,25	0,24	0,23	0,23	0,22	0,22	0,21
Durability	Pass – all colours	Pass – all colours	Pass – all colours	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	NPD	NPD	NPD
Resistance to access loads, kPa	NPD	NPD	NPD	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	A2-s1,d0	A2-s1,d0	A2-s1,d0
Fire resistance	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD
External fire performance	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$
Water permeability	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD
Air permeability	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD
Airborne sound insulation	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD

TENAX GRUPA, TENAX PANEL SIA
Spodribas iela 1, Dobele,
LV3701, Latvija
Reģ. Nr. LV40203186964

Tenaxpanel@tenaxgrupa.lv
T: +371 63720957
M: +371 27777752
www. tenaxpanel.com

Declaration of Performance No 1S-T5M0-003, Annex 4

Sandwich panels TENAX TR200 MW S10, TENAX TR205 MW S10, TENAX TR210 MW S10, TENAX TR215 MW S10, TENAX TR220 MW S10, TENAX TR225 MW S10, TENAX TR230 MW S10, TENAX TR235 MW S10, TENAX TR240 MW S10

Essential characteristics	Performance								
Year when CE mark was affixed	10								
Metal facings									
Thickness, mm	0,5; 0,6								
Steel name	S250GD; S280GD; S320GD								
Organic coating type and thickness	SP25; PVDF35								
Core material									
MW density, kg/m³	105								
Thermal conductivity, W/m·K	0,042								
Panel									
Thickness, mm	200	205	210	215	220	225	230	235	240
Panel weight, kg/m² (metal thickness 0,5/0,5 mm)	31,5	32,0	32,5	33,0	33,6	34,1	34,6	35,1	35,7
Shear modules of the core material, MPa	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
Shear strength of the panel, MPa	0,040	0,040	0,040	0,040	0,040	0,040	0,040	0,040	0,040
Long term shear strength, MPa	0,020	0,020	0,020	0,020	0,020	0,020	0,020	0,020	0,020
Creep coefficient									
- t = 2 000 h	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40
- t = 100 000 h	0,60	0,60	0,60	0,60	0,60	0,60	0,60	0,60	0,60
Compressive strength of the core material, MPa	0,10	0,10	0,10	0,10	0,10	0,10	0,10	0,10	0,10
Cross-panel tensile strength, MPa	0,07	0,07	0,07	0,07	0,07	0,07	0,07	0,07	0,07
Wrinkling stress for inner face									
- in span	110	110	110	110	110	110	110	110	110
- for loads pressing at an internal support	100	100	100	100	100	100	100	100	100
Wrinkling stress for outer face, MPa									
- in span	150	150	150	150	150	150	150	150	150
- in span at elevated temperature	150	150	150	150	150	150	150	150	150
- for loads suction at an internal support	150	150	150	150	150	150	150	150	150
- for loads suction at an internal support at elevated temperature	150	150	150	150	150	150	150	150	150
Thermal transmittance, W/m²·K	0,20	0,20	0,20	0,19	0,19	0,18	0,18	0,18	0,17
Durability	Pass – all colours	Pass – all colours	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	NPD	NPD
Resistance to access loads, kPa	NPD	NPD	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	A2-s1,d0	A2-s1,d0
Fire resistance	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD
External fire performance	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$	$B_{ROOF(t1,t2,t3)}$
Water permeability	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD
Air permeability	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD
Airborne sound insulation	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD	NPD

TENAX GRUPA, TENAX PANEL SIA
Spodrības iela 1, Dobele,
LV3701, Latvija
Reģ. Nr. LV40203186864

Tenaxpanel@tenaxgrupa.lv
T: +371 63720957
M: +371 27777752
www.tenaxpanel.com