

## I. GENERAL CHARACTERISTICS

### a. Application

PolTherma TS EI 30 is a wall sandwich panel with a core made of rigid polyurethane foam and it is installed onto the support construction with the use of self-drilling screws (so called visible fastening). It is allowed to install the panels onto the steel, reinforced concrete and wooden constructions in both horizontal and vertical layout. PolTherma TS EI 30 panel is dedicated as a wall material in various buildings ranging from agricultural, through warehouses to industrial buildings as well as partition walls and suspended ceilings where greater fire resistance is required.

PolTherma TS EI 30 panels should be used in accordance to a technical design prepared for a particular building, taking into consideration technical parameters of the panels declared by the producer. Application of PolTherma TS EI 30 must be in compliance with building regulations and norms, including the guidelines from the Infrastructure Ministry Directive from 12 April 2002 concerning the location and the technical conditions that a building should fulfill. (Dz. U. nr 75/2002, position. 690 with the later changes).

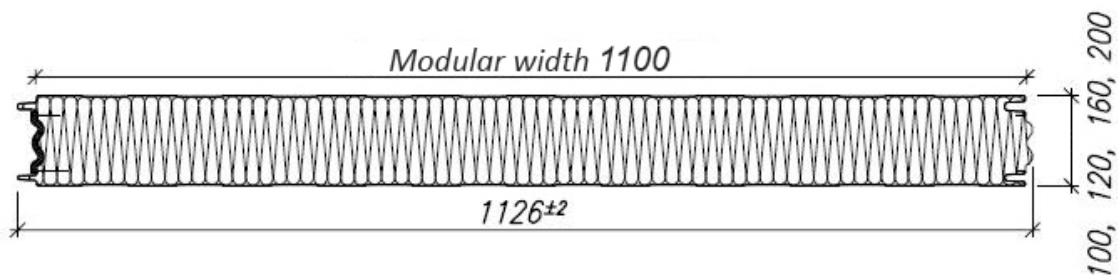
### b. Characteristics

Walls made of PolTherma TS EI 30 panels are characterized by EI 30 fire resistance, very advantageous durability and acoustic parameters, very good thermo insulation and air and water tightness, and easiness in installation in both vertical and horizontal layout.

## II. PHYSICAL PROPERTIES, TECHNICAL DATA

### a. Dimensions

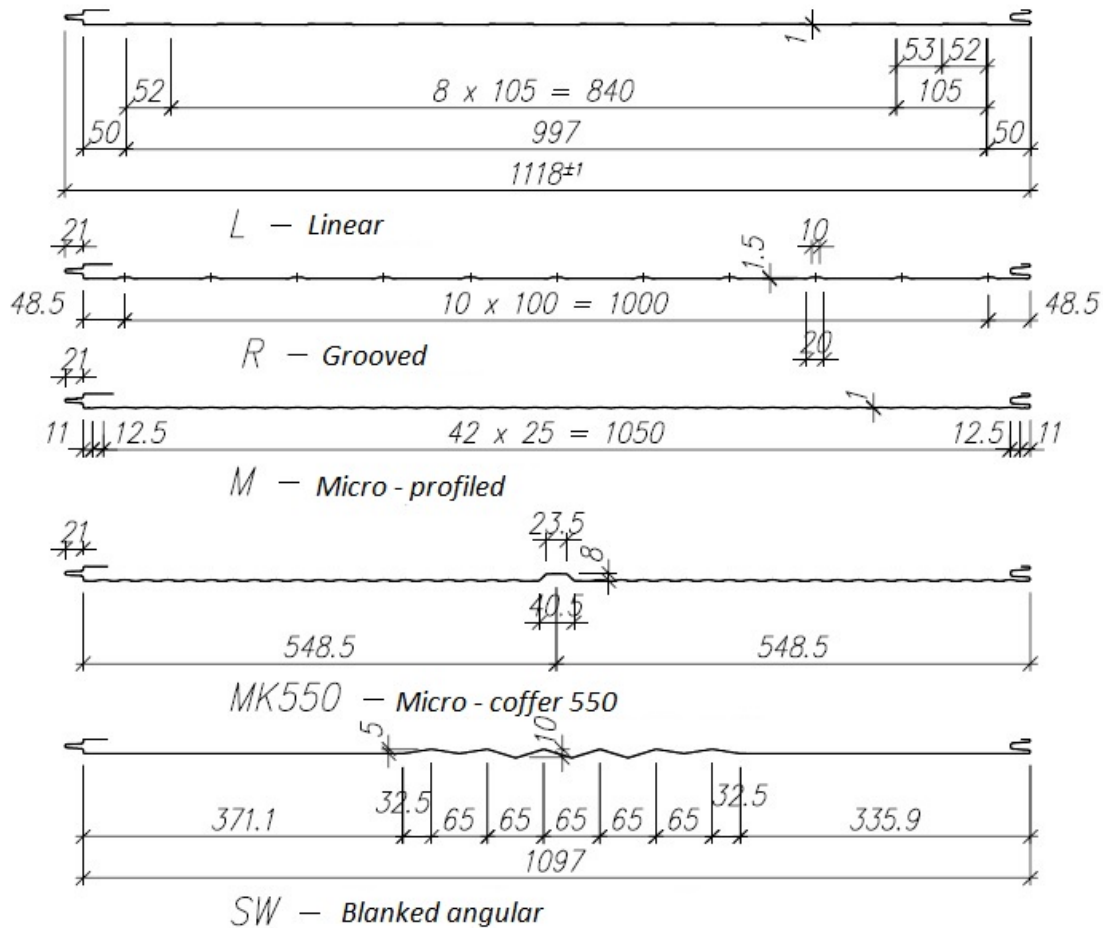
MODULAR WIDTH (COVERING AREA) [mm]:	1100
TOTAL WIDTH [mm]:	1126
AVAILABLE LENGTHS [mm]:	minimum: standard 2800, shorter sections may be cut for an extra fee
	maximum: 18000
AVAILABLE THICKNESSES (CORE) [mm]:	100; 120; 160; 200



## b. Outer facing profiling

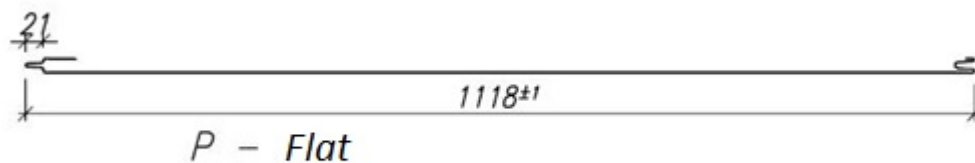
Standard:

- Micro-profiled (M), Linear (L), Grooved (R), Blanked angular (SW), Micro-Coffer 500 (MK550)



Option:

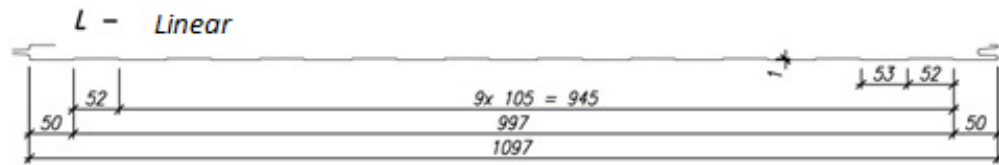
- Flat (P)



## c. Inner facing profiling

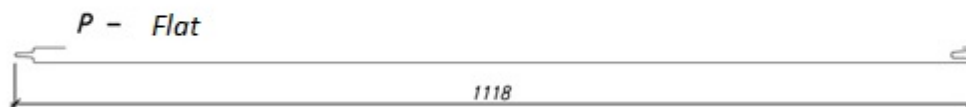
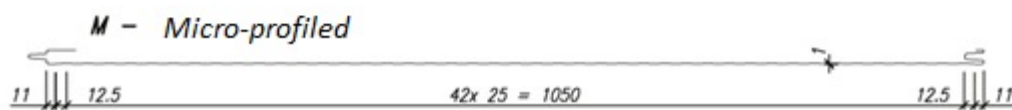
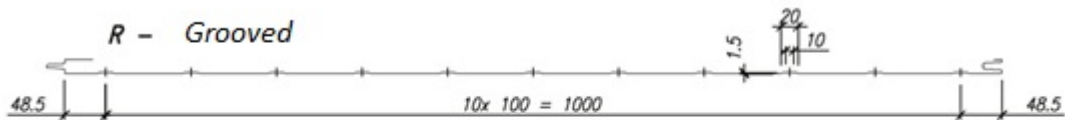
Standard:

- Linear (L)



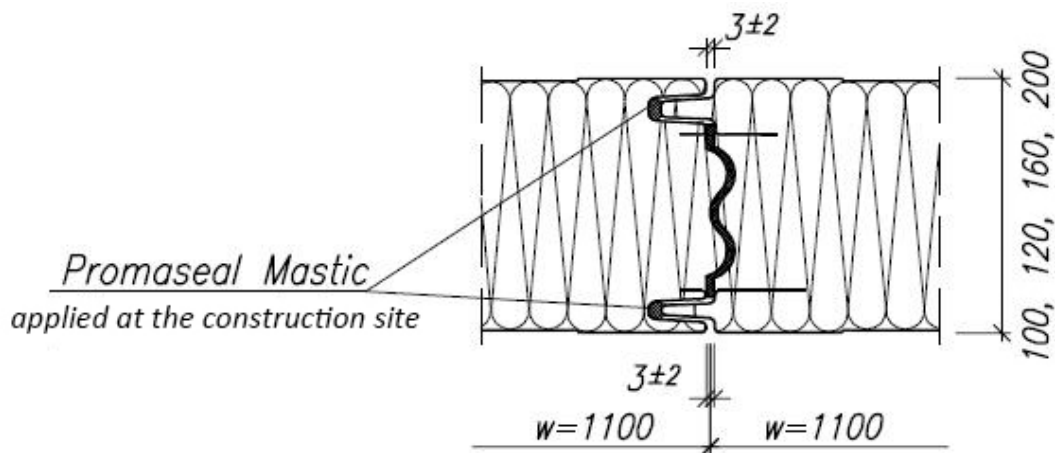
Option:

- Grooved (R), Micro-profiled (M), Flat (P)



#### d. The panel joint

An aluminum film is applied along one edge of the panel, along the second edge of the panel a polyurethane seal reinforced with an aluminum film is applied.



#### e. Mass

PANEL THICKNESS [mm]	MASS 1 m <sup>2</sup> [kg]
100	12,7
120	13,4
160	15,1
200	16,5

#### f. Facings

Steel sheet 0,5 mm thick (inner and outer facing)

#### g. Core

Rigid polyurethane foam with density  $38^{+3}$  kg/m<sup>3</sup>, thermal conductivity coefficient at +10°C temperature (declared value)  
 $\lambda_{d+10^{\circ}\text{C}} = 0,022 \text{ W/(m}\cdot\text{K)}$

#### h. Thermo insulation

PANEL THICKNESS [mm]	Thermal transmittance coefficient $U_{d,s}$ for profiling: M, R, L, P [W/(m <sup>2</sup> ·K)]	Thermal transmittance coefficient $U_{d,s}$ for profiling: SW, MSW [W/(m <sup>2</sup> ·K)]	Thermal transmittance coefficient $U_{d,s}$ for profiling: K, MK550 [W/(m <sup>2</sup> ·K)]
100	0,23	0,25	0,24
120	0,19	0,20	0,20
160	0,14	0,15	0,15
200	0,11	0,12	0,12

#### i. Acoustic parameters

REAL ACOUSTIC INSULATION	$R_w(C; C_{tr})$ 26 (-3; -4) dB
SOUND ABSORPTION:	$\alpha_w = 0,15$

#### j. Tightness

AIR TRANSMITTANCE:	$\leq 0,10 \text{ m}^3/\text{m}^2/\text{h}$
WATERPROOFNESS:	Class A
VAPOR TRANSMITTANCE:	Not transmitted

#### k. Fire resistance

PolTherma TS EI 30 panels received the following classification regarding the fire resistance for external walls:

- EI 15 (vertical and horizontal layout, spacing up to 11462 mm)
- EI 30 (vertical and horizontal layout, spacing up to 4000 mm)
- EW 30 (vertical and horizontal layout, spacing up to 9127 mm)

#### l. Reaction to fire

Class B-s1,d0

#### **m. Fire spreading rate for walls**

NRO from outside

#### **n. Durability**

Met for all color groups

#### **o. Corrosive tests**

Possible to use in environments A1, A2, A3 inside a building and C1, C2, C3 inside and outside of a building

#### **p. Loads**

Load charts have been prepared for all PolTherma TS EI 30 panels fastened directly onto a support construction with the use of self-drilling screws that go throughout the panel. The self-drilling screws' characteristic load capacity is 2,2 kN/pc. The charts are available on our website [www.europanel.pl](http://www.europanel.pl).

#### **r. Dimension tolerance**

<b>THICKNESS:</b>	$\pm 2$ mm for thickness up to 100 mm; $\pm 2\%$ for thickness >100 mm
<b>FLATNESS:</b>	L=0,6/1,0/1,5 mm for L=200/400/>700 mm
<b>LENGTH:</b>	L= $\pm 5/10$ mm for lengths $\leq 3000$ / > 3000 mm
<b>MODULAR WIDTH:</b>	W3 = $\pm 2$ mm
<b>RECTANGULARITY:</b>	$\leq 0,6\%$ *modular width = 6,6 mm
<b>RECTILINEARITY:</b>	1,0 mm/m, max 5,0 mm
<b>LONGITUDINAL BENDS:</b>	2,0 mm/m, max 10 mm
<b>CROSSWISE BENDS:</b>	8,5 mm/m

### **III. ADDITIONAL INFORMATION**

#### **a. Documentation and certificates**

Declaration of Performance Properties CE  
Hygienic Certificate

### **IV. TECHNICAL DRAWINGS – FLASHINGS AND RECOMMENDED SOLUTIONS**

Available on our website [www.europanel.pl](http://www.europanel.pl).