

I. MAIN CHARACTERISTICS

a. Application

PolTherma CS is a wall sandwich panel with a core made of rigid PU foam and it is installed with the use of self-drilling screws onto the support construction (so called visible fastening). It is allowed to install the panels onto the steel, reinforced concrete and wooden constructions. PolTherma CS panels are used for outside as well as inside walls and also suspended ceilings in buildings that require a very good thermo insulation, especially in cold stores, walk-in freezers, cooler semi trailers. Apart from its cooling applications, this panel will perform anywhere, where thermo insulation of the walls is the most important factor.

PolTherma CS 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 CS 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

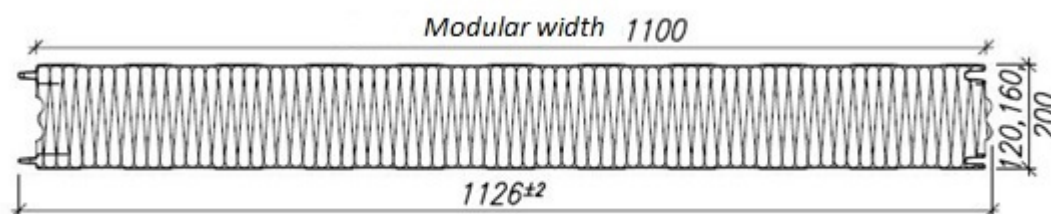
PolTherma™ CS panels are characterized by very advantageous acoustic and durability parameters, a very good thermo insulation, air and water tightness and an easy assembly.

In the joint a butyl sealant must be used (look technical drawings).

II. PHYSICAL PROPERTIES, TECHNICAL DATA

a. Dimensions

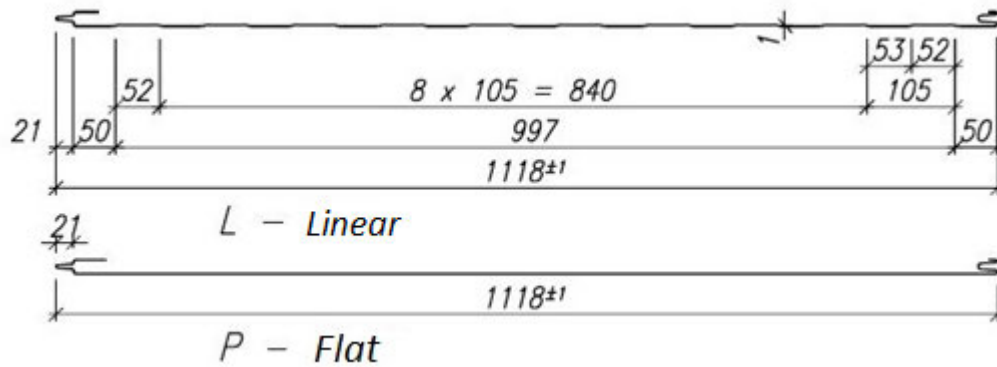
MODULAR WIDTH (COVERING AREA) [mm]:	1100
TOTAL WIDTH [mm]:	1126
AVAILABLE LENGTHS [mm]:	minimum: standard 2800, shorter sections may be cut for an extra fee
	maximum: 18000
AVAILABLE THICKNESSES (CORE) [mm]:	120; 160; 200



b. Outer facing profiling

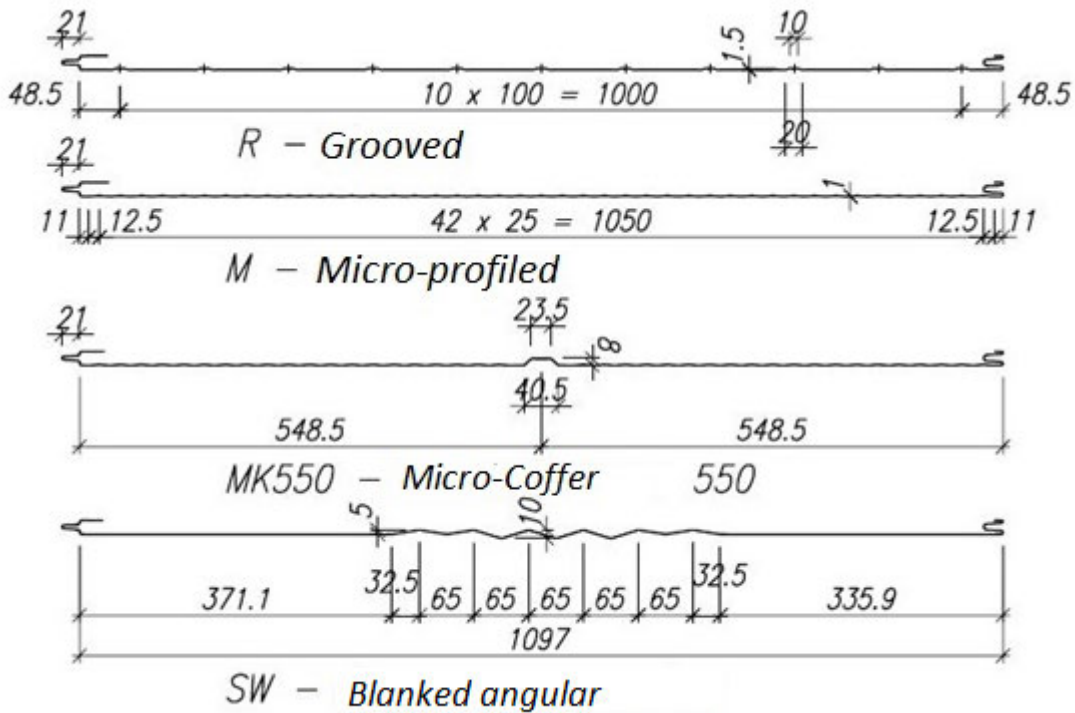
Standard:

- Linear (L), Flat (P)



Options:

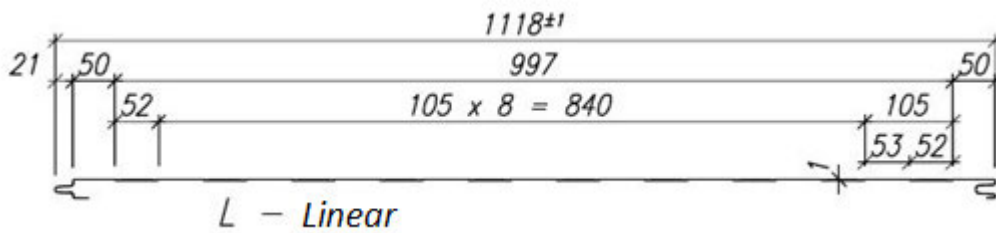
- Grooved (R), Micro-profiled (M), Blanked angular (SW), Micro-Coffer 550 (MK550)



c. Inner facing profiling

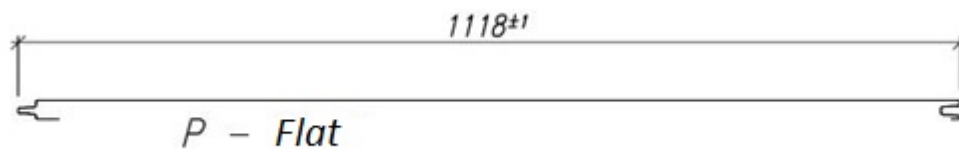
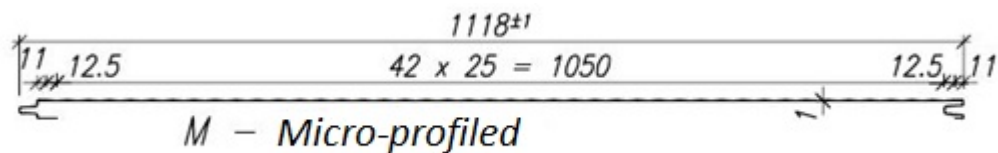
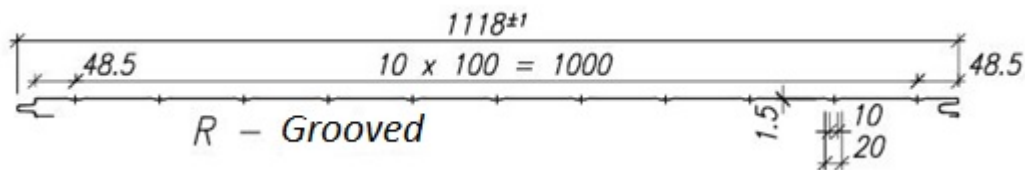
Standard:

- Linear (L)



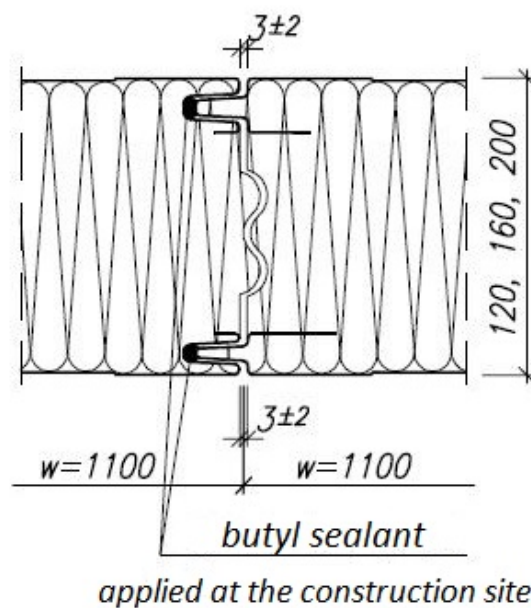
Option:

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



d. The panel joint

Aluminum tape, paper tape etc. is not used along the edges of the panels.



e. Mass

PANEL THICKNESS [mm]	MASS 1 m ² [kg]
120	13,4
160	14,9
200	16,5

f. Facings

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

g. Core

European PU Wall System Core — rigid PU foam with declared density $38 \pm 3 \text{ kg/m}^3$ and thermal conductivity coefficient $\lambda_D = 0,022 \text{ W/(m}\cdot\text{K)}$ at $+10^\circ\text{C}$ including aging, according to EN 14509:2013-12

h. Thermo insulation

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

No classification

l. Reaction to fire

Class B-s2, d0

m. Fire spreading rate / Fire resistance of the roof to outside fire

NRO from the 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 CS 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.

q. Dimension tolerance

THICKNESS:	± 2 mm
FLATNESS:	L=0,6/1,0/1,5 mm for L=200/400/>700 mm
LENGTH:	L=±5/10 mm for lengths ≤ 3000 / > 3000 mm
MODULAR WIDTH:	W3 = ± 2 mm
RECTANGULARITY:	≤ 0,6%*modular width = 6,6 mm
RECTILINEARITY:	1,0 mm/m, max 5,0 mm
LONGITUDINAL BENDS:	2,0 mm/m, max 10 mm
CROSSWISE BENDS:	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.