

PolTherma DS FLEXI

I. GENERAL CHARACTERISTICS

a. Application

PolTherma DS FLEXI is a wall sandwich panel with a core made of rigid polyurethane core PU and it is installed to the existing walls, support construction with the use of fasteners in an invisible to see way (invisible fastener). PolTherma DS FLEXI is dedicated as an additional insulation and finishing in buildings of versatile purposes ranging from agricultural buildings, through warehouses to industrial buildings. PolTherma DS FLEXI is a product that combines two functions, warming and renovation. The panels should be used mainly for thermo modernization of existing facilities. The panels give a new architectural shape and improve the insulation parameters of the walls. Płyty ścienne PolTherma DS FLEXI powinny być stosowane zgodnie z projektem technicznym opracowanym dla danego budynku, uwzględniającego parametry techniczne płyt deklarowane przez producenta. PolTherma DS 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 PS 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).

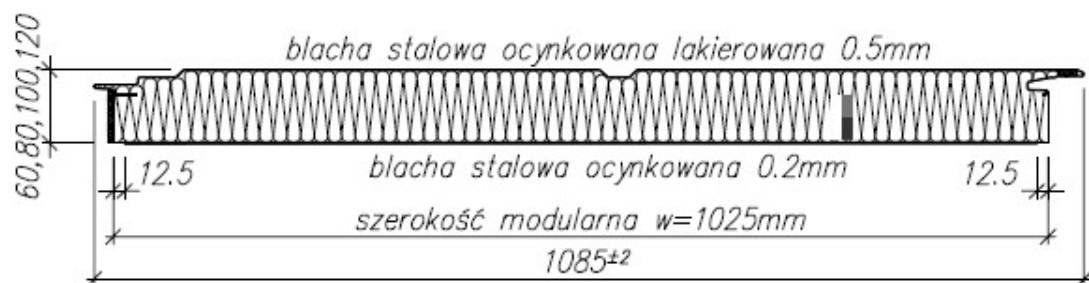
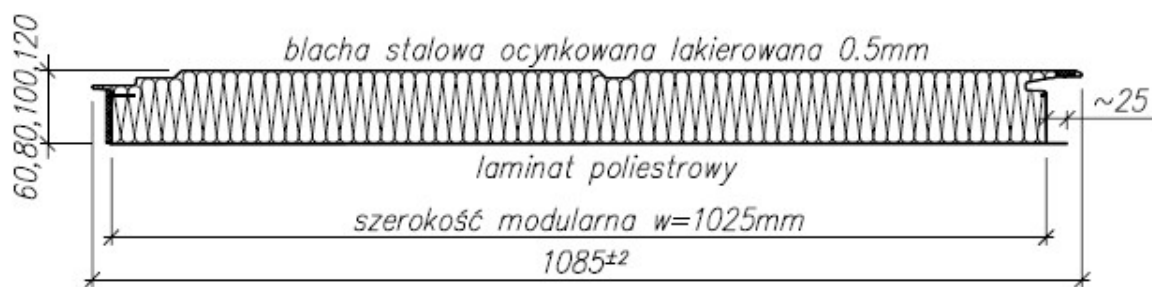
b. Characteristics

Płyty PolTherma DS FLEXI panel is characterized by its above-average modular width, which is 1025mm, very good thermo insulation and air and water tightness, and easiness in installation in both vertical and horizontal layout. The biggest advantage of PolTherma DS FLEXI is a design of profiling, which gives the individual character to the buildings.

II. PHYSICAL PROPERTIES, TECHNICAL DATA

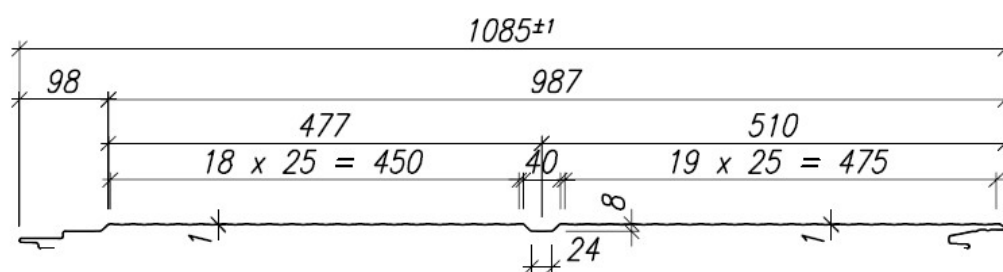
a. Dimensions

MODULAR WIDTH (COVERING AREA) [mm]:	1025
TOTAL WIDTH [mm]:	1085
AVAILABLE LENGTHS [mm]:	minimum: standard 2800
	maximum: 8000
AVAILABLE THICKNESS (CORE) [mm]:	60; 80; 100; 120



b. Outer facing profiling

- Micro-coffer 500 (MK500)



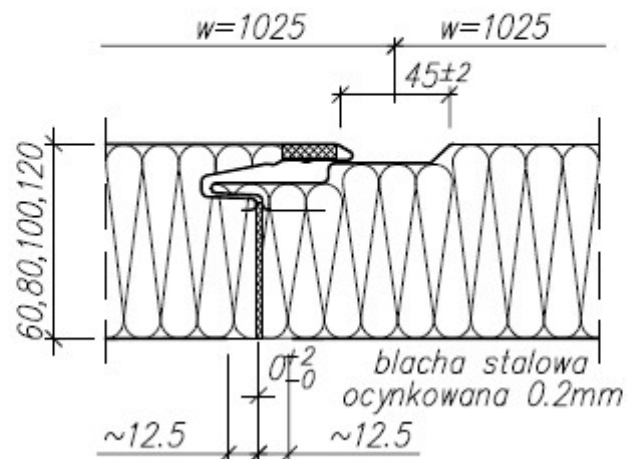
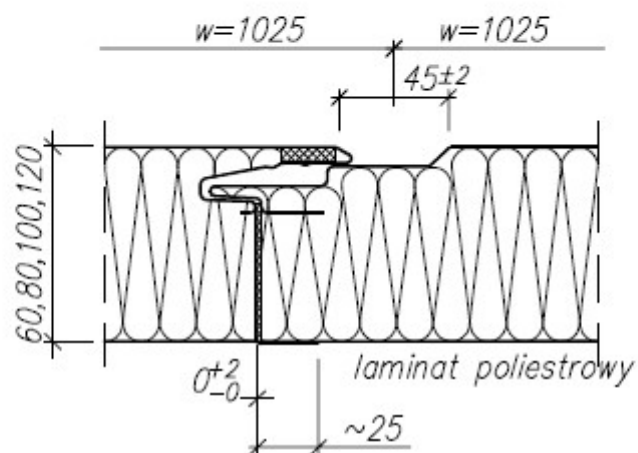
c. Inner facing profiling

- 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.

PolTherma DS Flexi



e. Mass

PANEL THICKNESS [mm]	MASS 1 m ² [kg] INTERNAL FACING: LAMINATE	MASS 1 m ² [kg] INTERNAL FACING: STEEL
60	7,85	8,54
80	8,61	9,30
100	9,37	10,06
120	10,13	10,82

f. Facings

Steel sheet 0,5 mm thick (outer facing) and 0,5 mm and laminate or galvanized steel (internal facing).

g. Core

European PU Wall System Core — rigid PU foam with declared density 38 ± 3 kg/m³ and thermal conductivity coefficient at +10°C:

$\lambda_d +10^\circ \text{C} = 0,027 \text{ W}/(\text{m}^*\text{K})$ – for internal facing - Laminate – thickness of the panel 60 mm

$\lambda_d +10^\circ \text{C} = 0,026 \text{ W}/(\text{m}^*\text{K})$ - for internal facing - Laminate - thickness of the panel 80, 100, 120 mm

$\lambda_d +10^\circ \text{C} = 0,021 \text{ W}/(\text{m}^*\text{K})$ - for internal facing - Steel - thickness of the panel 60, 80, 100 i 120 mm

h. Thermo insulation

PANEL THICKNESS [mm]	U (W/m ² *K) for walls INTERNAL FACING: LAMINATE	U (W/m ² *K) for walls INTERNAL FACING: STEEL
60	0,45	0,36
80	0,32	0,27
100	0,26	0,21
120	0,22	0,18

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

Not tested

l. Reaction to fire

Class F

m. Fire spreading rate

Not tested

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

An architect is obligated to present the method of fixing panels to the support construction.

III. ADDITIONAL INFORMATION

a. Documentation and certificates

Higienic certificate nr HK/B/0022/01/2015