



Manufacturer:

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Certificate of Conformity – Declaration of Performance

ref. no. TS40/EP/L,M,R,P/1/2017/ENG

Product name (ID code): PolTherma TS 40 L, M, R, P

Use: External walls, internal walls, ceilings

Product description: Metal faced insulating panel for use in buildings

European standard: EN 14509:2013-12 „Self-supporting double skin metal faced insulating panels – Factory made products – Specifications “

System of conformity: fire performance: System 3, other performances: System 4

ID of the notified bodies: ITB Warszawa, notification no. 1488; FIRES s.r.o. Batizovce, notification no. 1396

Declared performance parameters of the product:

Facings: Steel metal plate galvanized according to EN 10346, thickness range 0,4 to 0,7 mm in tolerances according to EN 10143. Protective coats according to EN 10169. Colours according to RAL Classic.

Profiling of external facing: L (linear), M (micro profiled), R (rabbet), P (plain)

Profiling of internal facing: L (linear), M (micro profiled), R (rabbet), P (plain)

Thermal insulation: European PU Wall System Core, density $38 \pm 3 \text{ kg/m}^3$, nominal thickness 37 mm

Thermal transmittance $U_{d,s}$: $0,62 \text{ W/m}^2\text{K}$

Declared thermal conductivity λ_D : $0,022 \text{ W/mK}$

Weight: $10,4 \text{ kg/m}^2$

Fire parameters:

- reaction to fire of the core (ignition test according to EN ISO 11925-2):

class E

- reaction to fire of the product (classification according to EN 13501-1):

B-s2,d0

Durability: Fulfils, for all colours

Dimensional tolerances: Fulfils

Tightness:

- water permeability: class A (1 200 Pa)
- air permeability: $\leq 0,10 \text{ m}^3/\text{h}/\text{m}^2$
- steam permeability: fulfils, impermeable

Acoustic parameters:

- airborne sound insulation: R_w 26 (-3, -4) dB
- sound absorption: $\alpha_w = 0,15$

Shear strength f_{cv} : 0,098 MPa; **Shear modulus (core) G_c :** 2,65 MPa

Creep coefficient ϕ_t : $t=2\ 000\text{h}$: 2,74; $t=100\ 000\text{h}$: 3,43

Compressive strength (core) f_{cc} : 0,09 MPa; **Compressive E-modulus (core) E_{cc} :** 1,99 MPa

Tensile strength f_{ct} : 0,1 MPa; **Tensile E-modulus of the core (+20 °C) E_{ct} :** 3,19 MPa

Bending resistance in span M_u : S280; 0,5 mm (for 0,4 mm in brackets):

- positive bending, external, ambient temperature: 2,55 (2,56) kNm/m
- positive bending, external, elevated temperature: 2,47 (2,48) kNm/m
- negative bending, internal, ambient temperature: 2,64 (2,07) kNm/m
- negative bending, internal, elevated temperature: 2,56 (2,01) kNm/m

Bending resistance at an internal support M_u : S280; 0,5 mm (for 0,4 mm in brackets):

- negative bending, ambient temperature: 2,21 (2,22) kNm/m
- negative bending, elevated temperature: 2,14 (2,15) kNm/m
- positive bending, ambient temperature: 2,31 (1,81) kNm/m
- positive bending, elevated temperature: 2,24 (1,76) kNm/m

Wrinkling stress, external facing σ_w : S280

- in span, ambient temperature: 140,53 MPa
- in span, elevated temperature: 136,18 MPa
- at central support, ambient temperature: 121,80 MPa
- at central support, elevated temperature: 118,03 MPa

Wrinkling stress, internal facing σ_w : S280

- in span, ambient temperature: 145,40 MPa
- in span, elevated temperature: 140,89 MPa
- at central support, ambient temperature: 127,30 MPa
- at central support, elevated temperature: 123,35 MPa

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WARSZAWA, January 2nd 2017

Place and date

Prokurent
Janusz Szczepański