

SYNTHOS XPS PRIME G 30 TB

Extruded polystyrene board

Declaration of Performance

no. SD/PG30TB/2024/01

Date of compilation: 2024-01-01

1. Unique identification code of the product-type:

Synthos XPS PRIME G 30 TB

2. Intended use:

Thermal insulation for buildings

Thermal insulation and light weight fill products for civil engineering applications.

3. Manufacturer:

Synthos Dwory 7 spółka z ograniczoną odpowiedzialnością

ul. Chemików 1

32-600 Oświęcim

POLAND

4. System of assessment and verification of constancy of performance:

System 3

5. Harmonised standards: EN 13164:2012+A1:2015; EN 14934:2007

Notified Bodies:

Instytut Techniki Budowlanej (NB 1488)

Forschungsinstitut für Wärmeschutz e. V. München FIW München (NB 0751)

RISE Research Institutes of Sweden AB (NB 0402)

6. Declared performances - Table no.1

Essential characteristics	Performance		Harmonized technical specification
Thermal resistance	Thermal resistance and thermal conductivity	Table no. 2, below	EN 13164:2012+A1:2015
	Thickness		
Reaction to fire	Euroclass characteristic	Euroclass E	EN 13164:2012+A1:2015
Durability of reaction to fire against heat, weathering, ageing/degradation	Durability characteristics	No change	EN 13164:2012+A1:2015
Durability of thermal resistance against heat, weathering, ageing/degradation	Thermal resistance and thermal conductivity	Table no. 2, below	EN 13164:2012+A1:2015
	Durability characteristics	DS(70,90)	EN 13164:2012+A1:2015
		DLT(2)5	EN 13164:2012+A1:2015
	Freeze-thaw resistance after long term water diffusion test	FTCD2	EN 13164:2012+A1:2015

	Freeze-thaw resistance after long term water absorption by total immersion	FTCI2	EN 13164:2012+A1:2015
Compressive strength	Compressive strength at 10% of deformation	CS(10/Y)300	EN 13164:2012+A1:2015
Tensile/flexural strength	Tensile strength perpendicular to faces	TR100	EN 13164:2012+A1:2015
Durability of compressive strength against ageing/ degradation	Compressive creep	NPD	EN 13164:2012+A1:2015
Water permeability	Long term water absorption by total immersion	WL(T)0,7	EN 13164:2012+A1:2015
	Long term water absorption by diffusion	WD(V)1	EN 13164:2012+A1:2015
Water vapour permeability	Water vapour transmission	NPD	EN 13164:2012+A1:2015
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD	EN 13164:2012+A1:2015
Glowing combustion	Continuous glowing combustion	NPD	EN 13164:2012+A1:2015
Reaction to fire	Reaction to fire	Euroclass E	EN 14934:2007
Glowing combustion	Continuous glowing combustion	NPD	EN 14934:2007
Resistance against dynamic loads	Resistance against cyclic compressive loading	Table no. 3, below	EN 14934:2007
Water permeability	Long term water absorption by total immersion	WL(T)0,7	EN 14934:2007
	Long term water absorption by diffusion	NPD	EN 14934:2007
Release of dangerous substances to the indoor environment	Release of dangerous substances	NPD	EN 14934:2007
Thermal resistance	Thermal resistance and thermal conductivity	Table no. 2, below	EN 14934:2007
	Thickness		EN 14934:2007
Water vapour permeability	Water vapour transmission	NPD	EN 14934:2007
Compressive strength	Compressive strength at 2% of deformation	CS(2/Y)100	EN 14934:2007
	Compressive strength at 5% of deformation	CS(5/Y)200	EN 14934:2007

	Compressive strength at 10% of deformation	CS(10/Y)300	EN 14934:2007
Tensile/flexural strength	Flexural strength	NPD	EN 14934:2007
Durability of reaction to fire against heat, weathering, ageing/ degradation	-	No change	EN 14934:2007
Durability of thermal resistance against heat, weathering, ageing/degradation	Thermal resistance and thermal conductivity	Table no.2, below	EN 14934:2007
	Dimensional stability at 23°C and 90% relative humidity	NPD	EN 14934:2007
	Dimensional stability at (70 °C)	NPD	EN 14934:2007
	Dimensional stability at 70°C and 90% relative humidity	DS(TH)	EN 14934:2007
	Deformation under specific conditions of compressive load of 40 kPa and at temperature of 70°C	DLT(2)5	EN 14934:2007
	Freeze-thaw resistance	FTC2	EN 14934:2007
Durability of compressive strength against ageing/ degradation	Compressive creep	NPD	EN 14934:2007
	Freeze-thaw resistance	FTC2	EN 14934:2007
Durability of resistance against dynamic loads	Resistance to cyclic compressive load	Table no. 3, below	EN 14934:2007
Durability of resistance against chemical and biological agents	-	NPD	EN 14934:2007

Table no. 2. Heat values for particular thickness

Thickness In the class of tolerance T1 [mm]	Coefficient of thermal conductivity λ_D [W/mK]	Thermal resistance R_D [m ² K/W]
140	$\leq 0,034$	$\geq 4,10$
150	$\leq 0,034$	$\geq 4,40$
160	$\leq 0,034$	$\geq 4,70$
170	$\leq 0,035$	$\geq 4,85$
180	$\leq 0,035$	$\geq 5,10$
190	$\leq 0,035$	$\geq 5,40$
200	$\leq 0,035$	$\geq 5,70$
210	$\leq 0,036$	$\geq 5,80$
220	$\leq 0,036$	$\geq 6,10$
230	$\leq 0,036$	$\geq 6,35$
240	$\leq 0,036$	$\geq 6,65$

Table no. 3. Resistance against cyclic compressive loading

Thickness [mm]	Resistance against cyclic compressive loading using square - wave load: 5% deformation after 2×10^6 cycles	Resistance against cyclic compressive loading using sinusoid - wave load: 5% deformation after 2×10^6 cycles
140	CLRT(5/2×10 ⁶)130	CLR(5/2×10 ⁶)130
150	CLRT(5/2×10 ⁶)125	CLR(5/2×10 ⁶)125
160	CLRT(5/2×10 ⁶)120	CLR(5/2×10 ⁶)120
170	CLRT(5/2×10 ⁶)115	CLR(5/2×10 ⁶)115
180	CLRT(5/2×10 ⁶)110	CLR(5/2×10 ⁶)110
190	CLRT(5/2×10 ⁶)110	CLR(5/2×10 ⁶)110
200	CLRT(5/2×10 ⁶)105	CLR(5/2×10 ⁶)105
210	CLRT(5/2×10 ⁶)100	CLR(5/2×10 ⁶)100
220	CLRT(5/2×10 ⁶)100	CLR(5/2×10 ⁶)100
230	CLRT(5/2×10 ⁶)95	CLR(5/2×10 ⁶)95
240	CLRT(5/2×10 ⁶)95	CLR(5/2×10 ⁶)95

The performance of the product identified above is in conformity with the set of declared performances. 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:

Chairman of the Board



Artur Pawłowski

Oświęcim, 2024-01-01