TECHNICAL DATA SHEET

Wall insulation Panels 3, 6 and 9mm

Material Extruded Polystyrene foamsheets with flame retardant. **Colour:** White

Fire regulations B2 according to DIN 4102-1 MPA test certificate Nr. 23007514
Classement M1 according to NFP 92-512 SNPE test certificate Nr. 14307-08

Dimensional properties

	Symbol	Insulation Panel G3	Insulation Panel G6	Insulation Panel G9	Unit	Test method
Thickness	s	3	6	9	mm	EN 22286
within one sheet	Tolerance	Thickness from center to border max. 0,3mm	Thickness from center to border max. 0,6mm	Thickness from center to border max. 0,6mm		
total		+/- 0,3	+/- 0,6	+/-0,6		
Sheet dimensions (L x W)		1250 x 800	1250 x 800	1250 x 800	mm	-
	Tolerance	L : -2,5/+5 mm; W:-2,0/+1,0mm	L : -2,5/+5 mm; W:-2,0/+1,0mm	L : -2,5/+5 mm; W:-2,0/+1,0mm		
Foam density	ρ_s	40	33	35	kg/m³	EN ISO 845

Thermal properties

Thermal conductivity (measured)	λ	0,0297	0,0306	0,0307	W/mK	DIN 52612 tl.1
Heat transfer coefficient (U-value)	k	9,9	5,1	3,4	W/m²K	
Thermal resistance	R (oder 1/Λ)	0,101	0,1961	0,293	m²K/W	
Thermal conductivity of the composite*		83%	70%	62 %	%	
Reduction of thermal conductivity by insulation tile*		17%	30%	38 %	%	≡Energy savings capacity
Thermal effusivity	b	2,7	2,4	2,4	kJ/m²h$^{0.5}$K	
Temperature range for applications	ϑ	-60 / +70	-60 / +70	-60 / +70	°C	
Melting temperature	ϑ	> 160	> 160	> 160	°C	
Thermal decomposition	ϑ	> 250	> 250	> 250	°C	
Ignition temperature - with flame influence	ϑ	350-400	350-400	350-400	°C	
Ignition temperature - without flame influence	ϑ	450-500	450-500	450-500	°C	

*both properties in comparison to a 24 cm brick wall

Miscellaneous properties

Compression stress at 10% foam deformation	σ_{d10}	0,10	0,15	0,15	MPa	DIN 53421
Water absorption	WA_v	<0,1	< 0,1	< 0,1	Vol%	DIN 53434
Water vapour permeability resistance factor	μ	650	450	300	-	DIN 52615 tl.1
Watervapourdiffusions-equivalents of air-layer thickness (μ x s/1000)	S_d	2,0	2,7	2,7	m	DIN 52615 tl.1
Wettability test	γ_c	> 42	> 42	> 42	mN/m	DIN ISO 8296

Health aspects / Impact on the ambient air quality

VOC/COVvolatile organic components	C_6 to C_{16}	A+	A+	A+	Grenelle-Law
Residual monomers, Benzol	C_8H_8, C_6H_6	unverifiable	unverifiable	unverifiable	Grenelle-Law, AgBB
carcinogenic substances		unverifiable	unverifiable	unverifiable	Grenelle-Law, AgBB
Low aldehyde (formaldehyde etc.)	R-CHO	unverifiable	unverifiable	unverifiable	Grenelle-Law, AgBB

More special features: Is odorless, does not rot and does not get moldy.
Only use solvent-free adhesives.

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