

## TECNICAL DATA SHEET

Insulation tiles 3 mm, 6 mm, 9 mm, 12 mm



**Material** Extruded Polystyrene foamsheets with flame retardant.

**Colour** : White

**Fire regulations** E according to DIN EN 13501-1 classification report n° 902 7088 000-4 (MPA)

Symbol	Insulation tile G3	Insulation tile G6	Insulation tile G9	Insulation tile G12	Unit	Test method
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### Dimensional properties

Thickness	s	3	6	9	12	mm	DIN EN 823
within one sheet total	Tolerance	Thickness from center to border max. 0,3mm +/- 0,3	Thickness from center to border max. 0,6mm +/- 0,6	Thickness from center to border max. 0,6mm +/- 0,6	Dicke Mitte bis Kante max. 0,6mm +/- 0,6		
Sheet dimensions (L x W)	Tolerance	1250 x 800 L : -2,5/+5 mm; W: -2,0/+1,0mm	1250 x 800 L : -2,5/+5 mm; W: -2,0/+1,0mm	1250 x 800 L : -2,5/+5 mm; W: -2,0/+1,0mm	1250 x 800 L : -2,5/+5 mm; W: -2,0/+1,0mm	mm	DIN EN 822
Foam density	$\rho_s$	40	33	35	38	kg/m <sup>3</sup>	DIN EN ISO 845

### Thermal properties

Thermal conductivity (measured)	$\lambda$	0,0297	0,0306	0,0307	0,0306	W/mK	DIN EN 12667
Heat transfer coefficient (U-value)	k	9,9	5,1	3,4	2,6	W/m <sup>2</sup> K	
Thermal resistance	$R$ (oder 1/ $\lambda$ )	0,101	0,1961	0,293	0,392	m <sup>2</sup> K/W	
Thermal conductivity of the composite*		83%	70%	62%	57 %	%	
Reduction of thermal conductivity by insulation tile*		17%	30%	38%	43 %	%	≙Energy saving capacity
Thermal effusivity	b	2,5	2,3	2,4	2,5	kJ/m <sup>2</sup> h <sup>0,5</sup> K	
Temperature range for applications	$\vartheta$	-60 / +70	-60 / +70	-60 / +70	-60 / +70	°C	
Melting temperature	$\vartheta$	> 160	> 160	> 160	> 160	°C	
Thermal decomposition	$\vartheta$	> 250	> 250	> 250	> 250	°C	
Ignition temperature	$\vartheta$	350-400	350-400	350-400	350-400	°C	
- with flame influence	$\vartheta$	350-400	350-400	350-400	350-400	°C	
- without flame influence	$\vartheta$	450-500	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	$\sigma_{d10}$	100	150	150	180	kPa	DIN EN 826
Water absorption	WA <sub>v</sub>	<0,1	< 0,1	< 0,1	< 0,1	Vol%	DIN 53434
Water vapour permeability resistance factor (app)	$\mu$	150	150	150	150	-	DIN EN ISO 12572
Watervapourdiffusion equivalent ( $\mu$ x s/1000)	S <sub>d</sub>	0,45	0,9	1,35	1,80	m	DIN EN ISO 12572
Surface tension	$\gamma_c$	> 42	> 42	> 42	> 42	mN/m	DIN ISO 8296

### Health aspects / Impact on the ambient air quality

VOC/COV volatile organic components	C <sub>6</sub> bis C <sub>16</sub>	A+	A+	A+	A+	Grenelle-Law
Residual monomers, Benzol	C <sub>6</sub> H <sub>6</sub> , C <sub>6</sub> H <sub>6</sub>	unverifiable	unverifiable	unverifiable	unverifiable	Grenelle-Law, AgBB
carcinogenic substances		unverifiable	unverifiable	unverifiable	unverifiable	Grenelle-Law, AgBB
Low aldehyde (formaldehyde etc.)	R-CHO	unverifiable	unverifiable	unverifiable	unverifiable	Grenelle-Law, AgBB

More special features:

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

This information is based on our present state of knowledge and is intended to provide general notes on our products and their uses. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application. Any existing industrial property rights must be observed.  
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