Physical material properties
of the applied materials

FRINORM®

Substructure elements for lifting sliding doors
Resistant to moisture and mildew

Polyurethane recycled board, PH	Symbol	Test method	Unit	Value
Material	Polyurethane product free of CFCs, HCFCs and formaldehyde			
Resistance to ageing	Mildew- and rot-resistant			
Gross density	ρ_a	DIN EN 1602	kg/m³	550 ±50
Thermal conductivity	λ_D		W/mK	0.076
Fire behaviour		DIN EN 13501-1	Class	E
Fire behaviour		DIN 4102, Part 1	Class	B2
Bending strength			N/mm²	Approx. 7.8
Thickness swelling (after 24 hrs immersion in water)			%	Approx. 1
Structural properties – strength (elasticity modulus)			N/mm²	500
Water vapour diffusion resistance factor				Approx. 12
Screw retention Screw depth 15 mm²			N	Approx. 650
Screw retention Screw depth 40 mm²			N	Approx. 3500
Compressive strength³		DIN EN 826	kPa	Approx. 7000
Length expansion due to moisture			mm/m	±2
Length expansion coefficient In the range –20 °C to + 60 °C			K	Approx. 28.375*10^{-6}
Residual moisture			%	Approx. 2–4
Construction material class		DIN EN 4102	Non-dripping	B2
Thickness tolerance, unsanded			mm	±0.4
Thickness tolerance, sanded			mm	±0.2
Applicable in temperature range	–50 °C to +100 °C			

Intensely expanded polystyrene rigid foam (EPS perimeter)	Symbol	Test method	Unit	Value
Gross density	ρ_a	1602	kg/m³	30
Thermal conductivity	λ_D	279	W/(mK)	0.033
Specific thermal capacity	c		Wh/(kgK)	0.39
Water vapour diffusion resistance factor	μ	12086		70
Thermal length expansion coefficient			K^{-1}	5–7·10^{-5}
Water absorption after long-term submersion	W_{lt}	12087	%	≤3
Water absorption through diffusion	W_{dV}	12088	%	≤5
Fire behaviour classification in acc. with EN		13501–1		E
Fire behaviour group		VKF		RF3 (cr)
Compression stress at 10% compression	○10	826	kPa	≥250
Top application limit temperature, non-weight-bearing			°C	75
Cell content				Air

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