

Material datasheet

Material: PAS-PE5 reg

mechanical characteristics

Characteristic	Standard	Unit	Value
Yield stress (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm ²)	25
Yield strain (dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	%	8
Elongation at break (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	%	600
Tensile E-modulus (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm ²)	1000
Max. permissible pressure load (continuous)	Faigle	MPa (N/mm ²)	6
Charpy impact strength (+23°C, dry)	ISO 179 DIN 53453	kJ/m ²	No Break
Charpy notched impact strength (+23°C, dry)	ISO 179 DIN 53453	kJ/m ²	15
Coefficient of sliding friction (p = 0.3N/mm ² / 0.6N/mm ² , v = 0.27m/s, against steel hardened and ground, dry)			0.3

thermal characteristics

Characteristic	Standard	Unit	Value
min. Operating temperature (continuous)		°C	-50
max. service temperature (continuous)		°C	80
max. service temperature (short-term)		°C	100
Coefficient of linear thermal expansion (23 - 60°C)	ISO 11359	10 ⁻⁶ /K	200
Thermal conductivity (+23°C)	DIN 52612	W/(m×K)	0.4

combustibility characteristics

Characteristic	Standard	Unit	Value
UL94 flammability	IEC 60695-11-10	class	HB

These data are guideline values which are subject to change depending on the type of manufacture of the test specimens and stress. These data are based on our own experience and on manufacturer's data. However, they are provided without guarantee, since each application is different and must be considered with reference to its specific influence parameters.

electrical characteristics

Characteristic	Standard	Unit	Value
Surface resistivity (dry)	DIN IEC 60093 (DIN VDE 0303-30) ASTM D 257	Ω	10^{14}

physical characteristics

Characteristic	Standard	Unit	Value
Density, Gross density	ISO 1183 DIN 53479 ASTM D 792	g/cm ³	0.96
Water absorption at saturation (water storage 23°C)	ISO 62 DIN 53495 ASTM D 570	%	0.01

chemical characteristics

Characteristic	Standard	Unit	Value
UV light and weathering			conditionally stable