

Material datasheet

Material: PAS-80

mechanical characteristics

Characteristic	Standard	Unit	Value
Yield stress (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm ²)	86
Tensile strength (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm ²)	80
Elongation at break (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	%	50
Tensile E-modulus (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm ²)	3300
Max. permissible pressure load (continuous)	Faigle	MPa (N/mm ²)	15
Ball indentation hardness (dry)	ISO 2039-1	MPa (N/mm ²)	155
Charpy notched impact strength (+23°C, dry)	ISO 179/1eA	kJ/m ²	7

thermal characteristics

Characteristic	Standard	Unit	Value
min. Operating temperature (continuous)		°C	-30
max. service temperature (continuous)		°C	90
max. service temperature (short-term)		°C	160
Heat deflection temperature HDT/A (1.8 N/mm ²)	ISO 75-1/-2 DIN 53461 ASTM D 648	°C	80
Coefficient of linear thermal expansion (23 - 60°C)	ISO 11359	10^-6/K	80
Thermal conductivity (+23°C)	DIN 52612	W/(m×K)	0.3

combustibility characteristics

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

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electrical characteristics

Characteristic	Standard	Unit	Value
Dielectric constant, relative permittivity (1 MHz, dry)	DIN IEC 60250 (DIN VDE 0303-4) ASTM D 150		3.3
Surface resistivity (dry)	DIN IEC 60093 (DIN VDE 0303-30) ASTM D 257	Ω	10^12

physical characteristics

Characteristic	Standard	Unit	Value
Density, Gross density	ISO 1183 DIN 53479 ASTM D 792	g/cm³	1.14
Moisture absorption at saturation - standard climate (23°C, 50% RF)	ISO 62 ISO 1110	%	2.7
Water absorption at saturation (water storage 23°C)	ISO 62 DIN 53495 ASTM D 570	%	8.5

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