

Material datasheet

Material: PAS-120

mechanical characteristics

Characteristic	Standard	Unit	Value
Yield stress (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm ²)	40
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)	1300
Max. permissible pressure load (continuous)	Faigle	MPa (N/mm ²)	9
Charpy notched impact strength (+23°C, dry)	ISO 179/1eA	kJ/m ²	10

thermal characteristics

Characteristic	Standard	Unit	Value
max. service temperature (continuous)		°C	95
max. service temperature (short-term)		°C	150
Heat deflection temperature HDT/A (1.8 N/mm ²)	ISO 75-1/-2 DIN 53461 ASTM D 648	°C	50
Coefficient of linear thermal expansion (23 - 60°C)	ISO 11359	10 ⁻⁶ /K	120
Thermal conductivity (+23°C)	DIN 52612	W/(m×K)	0.23

combustibility characteristics

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

electrical characteristics

Characteristic	Standard	Unit	Value
Dielectric constant, relative permittivity (1 MHz, dry)	DIN IEC 60250 (DIN VDE 0303-4) ASTM D 150		3.6
Dielectric loss factor (1 MHz, dry)	DIN IEC 60250 (DIN VDE 0303-4) ASTM D 150		0.026
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/cm ³	1.04
Moisture absorption at saturation - standard climate (23°C, 50% RF)	ISO 62 ISO 1110	%	0.7
Water absorption at saturation (water storage 23°C)	ISO 62 DIN 53495 ASTM D 570	%	1.5