

PA6G natural white

Homopolymere, based on caprolactam - Polyamide

Polyamide has great stiffness, hardness and high strength. It has excellent sliding properties and good temperature resistance.

Material Code: 0701H

MECHANICAL CHARACTERISTICS

Characteristic	Standard	Unit	Value
Yield stress (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm ²)	80
Tensile E-modulus (+23°C, dry)	ISO 527-1/-2 DIN 53455 ASTM D 638	MPa (N/mm ²)	3100
Max. permissible pressure load (continuous)		MPa (N/mm ²)	14
Charpy impact strength (+23°C, dry)	ISO 179 DIN 53453	kJ/m ²	No Break / No Break
Charpy notched impact strength (+23°C, dry)	ISO 179 DIN 53453	kJ/m ²	4
Ball indentation hard ness (dry)	ISO 2039-1	MPa (N/mm ²)	160
Coefficient of sliding friction (p = 0.3N/mm ² / 0.6N/mm ² , v = 0.27m/s, against steel hardened and ground, dry)			0,39

THERMAL CHARACTERISTICS

Characteristic	Standard	Unit	Value
min. Operating temperature (continuous)		°C	-40
max. service temperature (continuous)		°C	105
max. service temperature (short-term)		°C	170
Coefficient of linear thermal expansion (23 - 60°C)	ISO 11359	10 ⁻⁶ /K	80
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
Surface resistivity (dry)	DIN IEC 60093 (DIN VDE 0303-30) ASTM D 257	Ω	10^{13}

PHYSICAL CHARACTERISTICS

Characteristic	Standard	Unit	Value
Density, Gross density	ISO 1183 DIN 53479 ASTM D 792	g/cm^3	1,15
Water absorption at saturation (water storage 23°C)	ISO 62 DIN 53495 ASTM D 570	%	6,5