

GEHR Plastics PA 6 C Nylon 6 Cast

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , Cast

Material Notes:

Very stressed-relieved and high-molecular weight PA6. Temperature resistant from -40Â° to approx. 100Â°C and high stiffness, hardness and toughness. The good mechanical characteristics will be achieved only after conditioning, this material must be conditioned again after annealing. Properties: High strength and stiffness High impact and notching impact strength High heat deflection temperature Good at dampening Good glide and emergency operating features Good chemical stability against organic solvents and fuels Size alteration by humidity absorption must be considered Dimension stability, electrical and mechanical properties may become affected by humidity absorption Applications: Bearing parts (good sliding properties), gear wheels, pump parts, sliding rails, castors (reduction of the noise level), fittings

Order this product through the following link:

http://www.lookpolymers.com/polymer_GEHR-Plastics-PA-6-C-Nylon-6-Cast.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.15 g/cc	1.15 g/cc	ISO 1183
Water Absorption	6.5 %	6.5 %	ISO 62
Moisture Absorption at Equilibrium	2.2 %	2.2 %	ISO 62

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	83	83	ISO 868
Ball Indentation Hardness	165 MPa	23900 psi	ISO 209
Tensile Strength, Yield	80.0 MPa	11600 psi	ISO 527
Elongation at Break	>= 50 %	>= 50 %	ISO 527
Modulus of Elasticity	3.47 GPa	503 ksi	ISO 527
Flexural Strength	>= 100 MPa	>= 14500 psi	ISO 178
Charpy Impact Unnotched	NB	NB	ISO 179
Charpy Impact, Notched	0.400 J/cmÂ²	1.90 ft-lb/inÂ²	ISO 179

Thermal Properties	Metric	English	Comments
CTE, linear	80.0 Âµm/m-Â°C @Temperature 20.0 Â°C	44.4 Âµin/in-Â°F @Temperature 68.0 Â°F	DIN 53752
Thermal Conductivity	0.230 W/m-K	1.60 BTU-in/hr-ftÂ²- Â°F	ISO 22007-4

Thermal Properties	Metric	English	Comments
Maximum Service Temperature, Air	105 Â°C	221 Â°F	
Minimum Service Temperature, Air	-40.0 Â°C	-40.0 Â°F	
Glass Transition Temp, Tg	40.0 Â°C	104 Â°F	DIN EN ISO 3146
Flammability, UL94	HB	HB	

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+13 ohm-cm	>= 1.00e+13 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+13 ohm	>= 1.00e+13 ohm	IEC 60093
Dielectric Constant	3.7 @Frequency 1.00e+6 Hz	3.7 @Frequency 1.00e+6 Hz	DIN 53483
Dielectric Loss Index	0.030 @Frequency 1.00e+6 Hz	0.030 @Frequency 1.00e+6 Hz	DIN 53483

Descriptive Properties	Value	Comments
Bondability	yes	
Color	Natural	
Physiological indifference according	limited	FDA
	yes	EEC

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