

CELSTRAN® PA66-GF50-02 AD3007 - PA66
Description

PA66 with 50% ash content - heat stabilized

Material code according to ISO 1043-1: PA66 Heat stabilized Nylon 66 reinforced by 50 weight percent long glass fibers. The pellets are cylindrical and normally as well as the embedded fibers 10 mm long. Parts molded of CELSTRAN have outstanding mechanical properties such as high strength and stiffness combined with high heat deflection. The notched impact strength is increased at elevated and low temperatures due to the fiber skeleton built in the parts. The long fiber reinforcement reduces creep significantly. The very isotropic shrinkage in the molded parts minimizes the warpage. Complex parts can be manufactured with high reproducibility by injection molding. Can be used for substituting die cast metal with the advantage of Weight reduction, no corrosion problems, no post treatment.

Physical properties	Value	Unit	Test Standard
Density	97.4	lb/ft³	ISO 1183
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	2.38E6	psi	ISO 527-1, -2
Tensile stress at break, 5mm/min	37700	psi	ISO 527-1, -2
Tensile strain at break, 5mm/min	2	%	ISO 527-1, -2
Flexural modulus, 23°C	2.19E6	psi	ISO 178
Flexural strength, 23°C	59500	psi	ISO 178
Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	500	°F	ISO 11357-1/-3

Typical injection moulding processing conditions

Pre Drying	Value	Unit
Necessary low maximum residual moisture content	0.15	%
Drying time	2 - 4	h
Drying temperature	158 - 176	°F
Temperature	Value	Unit
Hopper temperature	158 - 176	°F
Feeding zone temperature	68 - 122	°F
Zone1 temperature	536 - 545	°F
Zone2 temperature	536 - 554	°F
Zone3 temperature	554 - 572	°F
Zone4 temperature	572 - 590	°F
Nozzle temperature	590 - 608	°F
Melt temperature	590 - 608	°F
Mold temperature	194 - 248	°F
Hot runner temperature	572 - 599	°F
Pressure	Value	Unit
Back pressure max.	30	bar
Speed	Value	
Injection speed	medium	
Screw Speed	Value	Unit
Screw speed diameter, 40mm	50	RPM
Screw speed diameter, 55mm	35	RPM
Screw speed diameter, 75mm	25	RPM

Characteristics


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Special Characteristics	Chemical resistant, Fuel resistant
Product Categories	Glass reinforced, Tribological
Processing	Compression molding, Porous sintering, Profile extrusion
Delivery Form	Pellets

