Celstran® PA66-GF50-02 P7/12

Polyamide 66

Celanese Corporation

Message:

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 7 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.

General Information			
Filler / Reinforcement	Long glass fiber, 50% filler by weight		
Additive	heat stabilizer		
Features	Low warpage Rigidity, high High strength Impact resistance, good Good creep resistance Low temperature impact resistance Thermal Stability		
Uses	Metal substitution		
RoHS Compliance	Contact manufacturer		
Forms	Particle		
Processing Method	Injection molding		
Resin ID (ISO 1043)	PA66		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.56	g/cm³	ISO 1183
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	16500	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	250	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.0	%	ISO 527-2/1A/5
Flexural Modulus (23°C)	14600	MPa	ISO 178
Flexural Stress (23°C)	410	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**

Charpy Notched Impact Strength (23°C)	42	kJ/m²	ISO 179/1eA
Thermal	**Nominal Value**	**Unit**	**Test Method**
Melting Temperature [1]	260	°C	ISO 11357-3
Injection	**Nominal Value**	**Unit**	
Drying Temperature	70.0 - 80.0	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.15	%	
Hopper Temperature	70.0 - 80.0	°C	
Rear Temperature	280 - 285	°C	
Middle Temperature	280 - 290	°C	
Front Temperature	290 - 300	°C	
Nozzle Temperature	310 - 320	°C	
Processing (Melt) Temp	310 - 320	°C	
Mold Temperature	90.0 - 120	°C	
Injection Pressure	120 - 150	MPa	
Injection Rate	Moderate		
Holding Pressure	50.0 - 80.0	MPa	
Back Pressure	0.00 - 3.00	MPa	
Injection instructions			
Manifold Temperature: 300 to 315°CZone 4 Temperature: 300 to 310°CFeed Temperature: 20 to 50°C			
NOTE			
1.	10°C/min		

Recommended distributors for this material

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