Celstran® PA66-GF50-02P11/14

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 11 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	Rigidity, high High strength Good creep resistance Low temperature impact resistance Thermal Stability		
RoHS Compliance	Contact manufacturer		
Forms	Particle		
Resin ID (ISO 1043)	PA66		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.57	g/cm³	ISO 1183
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
--	16800	MPa	ISO 527-2/1A/1
80°C	10000	MPa	ISO 527-2/1A
Tensile Stress			
Fracture	220	MPa	ISO 527-2/1A/5
80°C	140	MPa	ISO 527-2/1A
Tensile Strain			
Fracture	1.6	%	ISO 527-2/1A/5
Fracture, 80°C	1.8	%	ISO 527-2/1A
Flexural Modulus			ISO 178

23°C	15500	MPa	ISO 178
80°C	10500	MPa	ISO 178
Flexural Stress			ISO 178
23°C	330	MPa	ISO 178
80°C	260	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	30	kJ/m^2	ISO 179/1eA
23°C	30	kJ/m^2	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	58	kJ/m^2	ISO 179/1eU
23°C	60	kJ/m^2	ISO 179/1eU
Unnotched Izod Impact Strength			ISO 180/1U
-30°C	47	kJ/m^2	ISO 180/1U
23°C	54	kJ/m^2	ISO 180/1U
Multi-Axial Instrumented Impact Energy (-30°C)	23.8	J	ISO 6603-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
1.8 MPa, not annealed	258	°C	ISO 75-2/A
8.0 MPa, not annealed	240	°C	ISO 75-2/C
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	285 - 295	°C	
Middle Temperature	290 - 300	°C	
Front Temperature	300 - 310	°C	
Nozzle Temperature	300 - 315	°C	
Processing (Melt) Temp	300 - 315	°C	
Mold Temperature	80.0 - 100	°C	
Injection Pressure	120 - 150	MPa	
Holding Pressure	50.0 - 80.0	MPa	
Back Pressure	0.00 - 3.00	MPa	
Injection instructions			
Zone 4 Temperature: 300 to 315°CFeed Temperature: 20 to 50°C			
NOTE			
1.	10°C/min		

Recommended distributors for this material

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