Celstran® PA66-GF20-02P11/12

Polyamide 66

Celanese Corporation

Message:

Nylon 66 reinforced by 20 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.

General Information			
Filler / Reinforcement	Long glass fiber, 20% filler by weight		
Features	Rigidity, high High strength Impact resistance, good Good creep resistance Low temperature impact resistance		
Uses	Metal substitution		
RoHS Compliance	Contact manufacturer		
Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.30	g/cm³	ISO 1183
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
--	8300	MPa	ISO 527-2/1A/1
80°C	4970	MPa	ISO 527-2/1A
Tensile Stress			
Fracture	125	MPa	ISO 527-2/1A/5
80°C	103	MPa	ISO 527-2/1A
Tensile Strain			
Fracture	1.6	%	ISO 527-2/1A/5
Fracture, 80°C	2.6	%	ISO 527-2/1A
Flexural Modulus			ISO 178

23°C	7100	MPa	ISO 178
80°C	4400	MPa	ISO 178
Flexural Stress			ISO 178
23°C	190	MPa	ISO 178
80°C	175	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	27	kJ/m^2	ISO 179/1eA
23°C	24	kJ/m^2	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	52	kJ/m^2	ISO 179/1eU
23°C	41	kJ/m^2	ISO 179/1eU
Notched Izod Impact			ISO 180/1A
-30°C	21	kJ/m^2	ISO 180/1A
23°C	19	kJ/m^2	ISO 180/1A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
1.8 MPa, not annealed	260	°C	ISO 75-2/A
8.0 MPa, not annealed	238	°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	
Injection Rate	Moderate		
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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