



CELSTRAN® PA66-GF50-02 AF3001 NATURAL **CELSTRAN®** Long Fibre

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 11mm 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.

Product information			
Resin Identification	PA66-LGF50		ISO 1043
Part Marking Code	>PA66-LGF50<		ISO 11469
Rheological properties			
Viscosity number	140	cm ³ /g	ISO 307, 1628
Typical mechanical properties			
Tensile modulus	16500	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min		MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2	%	ISO 527-1/-2
Flexural modulus	14700		ISO 178
Flexural strength		MPa	ISO 178
Charpy notched impact strength, 23°C		kJ/m²	ISO 179/1eA
Poisson's ratio	0.33 ^[C]		
[C]: Calculated			
Thermal properties			
Melting temperature, 10°C/min	260	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	261	°C	ISO 75-1/-2
Physical/Other properties			
Density	1560	kg/m³	ISO 1183
Injection			
Drying Recommended	yes		
Drying Temperature	•	°C	
Drying Time, Dehumidified Dryer	2 - 4	h	
Processing Moisture Content	≤0.2	%	

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295 °C

285 °C

305 °C

≤0.2 m/s 100 °C

70 °C

Revised: 2024-04-15 Source: Celanese Materials Database

Melt Temperature Optimum

Mold Temperature Optimum Min. mould temperature

Min. melt temperature

Max. melt temperature Screw tangential speed





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Max. mould temperature120 °CHold pressure range50 - 100 MPaBack pressure3 MPa

Characteristics

Processing Injection Moulding

Delivery form Pellets

Special characteristics Heat stabilised or stable to heat

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