



Celstran® PA66-GF60-02 AD3002 Black

Celanese Corporation - Polyamide 66

Monday, November 4, 2019

General Information

Product Description

Material code according to ISO 1043-1: PA66 Heat stabilized Nylon 66 reinforced by 60 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

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Long Glass Fiber, 60% Filler by Weight
Additive	• Heat Stabilizer
Features	• Creep Resistant • High Stiffness • Heat Stabilized • High Strength
Uses	• Metal Replacement
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties¹

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	3.07E+6	--	psi	ISO 527-2/1A
Tensile Stress (Break)	37000	--	psi	ISO 527-2/1A/5
Tensile Strain (Break)	1.5	--	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	2.76E+6	2.18E+6	psi	ISO 178
Flexural Stress (73°F)	59500	47900	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength 73°F	25	--	ft-lb/in ²	ISO 179/1eA

Processing Information

Injection	Dry	Unit
Drying Temperature	158 to 176	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.15	%
Hopper Temperature	158 to 176	°F
Rear Temperature	527 to 545	°F
Middle Temperature	545 to 563	°F
Front Temperature	563 to 581	°F
Processing (Melt) Temp	599 to 617	°F
Mold Temperature	194 to 248	°F
Injection Rate	Moderate	
Back Pressure	< 435	psi

Celstran® PA66-GF60-02 AD3002 Black

Celanese Corporation - Polyamide 66

Injection Notes

Feeding Zone Temperature: 20 to 50°C
Zone 4 Temperature: 305 to 315°C
Die Temperature: 315 to 325°C
Hot Runner Temperature: 300 to 315°C
Screw Speed, 40mm diameter: 50 rpm
Screw Speed, 55mm diameter: 35 rpm
Screw Speed, 75mm diameter: 25 rpm

Notes

¹ Typical properties: these are not to be construed as specifications.