

Celstran® PP-GF40-0405 P10/10

聚丙烯

Celanese Corporation

Technical Data

Product Description

Material code according to ISO 1043-1: PP UV-stabilized polypropylene reinforced with 40 weight percent long glass fibers. The fibers are chemically coupled to the polypropylene matrix. 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. Application field: Functional/structural parts for automotive

General

Filler / Reinforcement	• 长玻璃纤维, 40% Filler by Weight		
Additive	• 紫外线稳定剂		
Features	• Good Isotropy • UV Stabilized • 低翘曲性	• 高刚性 • 高强度 • 化学耦合	• 良好的抗蠕变性 • 耐低温冲击
Uses	• 汽车领域的应用		
RoHS Compliance	• 联系制造商		
Forms	• 粒子		
Processing Method	• 注射成型		
Resin ID (ISO 1043)	• PP		

Physical	额定值 单位制	测试方法
Density	1.21 g/cm³	ISO 1183
Mechanical	额定值 单位制	测试方法
Tensile Modulus	9200 MPa	ISO 527-2/1A
Tensile Stress (断裂)	130 MPa	ISO 527-2/1A/5
Tensile Strain (断裂)	2.0 %	ISO 527-2/1A/5
Flexural Modulus		ISO 178
-40°C	6400 MPa	
23°C	9000 MPa	
Flexural Stress		ISO 178
23°C	200 MPa	
80°C	120 MPa	
Impact	额定值 单位制	测试方法
Charpy Notched Impact Strength		ISO 179/1eA
-30°C	30 kJ/m²	
23°C	25 kJ/m²	
Charpy Unnotched Impact Strength		ISO 179/1eU
-30°C	60 kJ/m²	
23°C	62 kJ/m²	
Thermal	额定值 单位制	测试方法
Heat Deflection Temperature		
1.8 MPa, 未退火	158 °C	ISO 75-2/A
8.0 MPa, 未退火	135 °C	ISO 75-2/C
Melting Temperature ⁴	165 °C	ISO 11357-3
Flammability	额定值 单位制	测试方法
Flame Rating (1.5 mm)	HB	UL 94

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Injection	额定值 单位制
Drying Temperature	90 到 100 °C
Drying Time	2.0 hr
Suggested Max Moisture	0.20 %
Rear Temperature	220 到 230 °C
Middle Temperature	230 到 240 °C
Front Temperature	240 到 250 °C
Nozzle Temperature	240 到 250 °C
Processing (Melt) Temp	230 到 270 °C
Mold Temperature	30 到 70 °C
Injection Rate	慢
Back Pressure	< 3.00 MPa
Injection Notes	
Feeding zone temperature: 20 to 50°C	
Zone4 temperature: 250 to 260°C	
Hot runner temperature: 230 to 270°C	