Celcon® GB10

Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

General Information

Product Description

Celcon® GB10 is a 10% glass bead filled grade for low shrinkage and warp resistance in large, flat, and thin walled parts. Chemical abbreviation according to ISO 1043-1: POM

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Bead, 10% Filler by Weight		
Features	• Low Shrinkage	• Warp Resistant	
Uses	• Thin-walled Parts		
RoHS Compliance	• Contact Manufacturer		
Resin ID (ISO 1043)	• POM		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.47	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	22	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	17	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.6	%	
Flow	1.9	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	450000	psi	ISO 527-2/1A
Tensile Stress (Yield)	7980	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	7.0	%	ISO 527-2/1A/50
Tensile Strain (Break)	10	%	ISO 527-2/1A/50
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (73°F)	1.7	ft·lb/in²	ISO 179/1eA
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (264 psi, Unannealed)	201	°F	ISO 75-2/A
Melting Temperature [2]	331	°F	ISO 11357-3

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	212 to 248	°F
Drying Time	3.0 to 4.0	hr
Rear Temperature	338 to 356	°F
Middle Temperature	338 to 356	°F
Front Temperature	356 to 374	°F
Nozzle Temperature	374 to 392	°F
Processing (Melt) Temp	356 to 392	°F
Mold Temperature	194 to 248	°F
Injection Rate	Slow	

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Injection	Nominal Value	Unit
Back Pressure	< 290	psi

Injection Notes

Zone4 temperature: 180 to 190°C
Hot runner temperature: 190 to 210°C

Notes

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

[2] 10°C/min