Celcon® GB25

Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

General Information

Product Description

Celcon® GB25 acetal copolymer is a 25% 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, 25% 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	1.58	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	17	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	13	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.3	%	
Flow	1.5	%	
Water Absorption (Saturation, 73°F)	0.65	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	537000	psi	ISO 527-2/1A
Tensile Stress (Yield)	7110	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	4.0	%	ISO 527-2/1A/50
Flexural Modulus (73°F)	522000	psi	ISO 178
Compressive Stress			ISO 604
1% Strain	4210	psi	
6% Strain	12800	psi	
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	1.0	ft·lb/in²	
73°F	1.1	ft·lb/in²	
Notched Izod Impact Strength (73°F)	1.2	ft·lb/in²	ISO 180/1A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (264 psi, Unannealed)	221	°F	ISO 75-2/A
Vicat Softening Temperature	322	°F	ISO 306/B50
Melting Temperature [2]	329	°F	ISO 11357-3
Melting Temperature	329	°F	
CLTE - Flow	3.9E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	4.4E-5	in/in/°F	ISO 11359-2

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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	356 to 374	°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	
Back Pressure	< 290	psi

Injection Notes

Zone4 temperature: 190 to 200°C
Hot runner temperature: 190 to 210°C
Flow temperature: 174°C

Notes

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

[2] 10°C/min