



Celcon® GC20

Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

General Information

Product Description

Celcon® GC20 is a glass coupled formulation containing 20% fiber glass reinforcement to improve strength and stiffness. Chemical abbreviation according to ISO 1043-1: POM

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • Asia Pacific • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight
Features	• Chemically Coupled • Good Stiffness • Good Strength
RoHS Compliance	• Contact Manufacturer
Resin ID (ISO 1043)	• POM

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.54	g/cm ³	ISO 1183
Water Absorption (Saturation, 73°F)	0.80	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.06E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	14400	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.2	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	1.02E+6	psi	ISO 178
Flexural Stress (73°F)	18900	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	2.9	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	19	ft·lb/in ²	
73°F	14	ft·lb/in ²	
Notched Izod Impact Strength (73°F)	2.5	ft·lb/in ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	320	°F	ISO 75-2/A
Melting Temperature ²	329	°F	ISO 11357-3
Melting Temperature	331	°F	
CLTE - Flow	2.4E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	6.1E-5	in/in/°F	ISO 11359-2

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

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Injection	Nominal Value	Unit
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

Notes

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

² 10°C/min