



Celcon® MC270

Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

General Information

Product Description

Celcon® MC270 is a mineral coupled acetal copolymer designed for applications requiring improved stiffness, lower mold shrinkage and reduced warpage while maintaining the mechanical performance characteristics of an unfilled Celcon® M270 grade.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Mineral		
Features	• Chemically Coupled • Good Stiffness	• Low Shrinkage • Low Warpage	
RoHS Compliance	• Contact Manufacturer		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.48	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	1.6	%	
Flow	1.9	%	
Water Absorption (Saturation, 73°F)	0.75	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	457000	psi	ISO 527-2/1A
Tensile Stress (Yield)	8270	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	7.0	%	ISO 527-2/1A/50
Flexural Modulus (73°F)	450000	psi	ISO 178
Flexural Stress (73°F)	11200	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	2.1	ft·lb/in ²	
73°F	2.6	ft·lb/in ²	
Notched Izod Impact Strength (73°F)	2.6	ft·lb/in ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	214	°F	ISO 75-2/A
Vicat Softening Temperature	322	°F	ISO 306/B50
Melting Temperature ²	329	°F	ISO 11357-3
Melting Temperature	333	°F	
CLTE - Flow	5.6E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	6.7E-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

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Injection	Nominal Value	Unit
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	176 to 248	°F
Injection Rate	Slow	
Back Pressure	< 580	psi

Injection Notes

Zone4 temperature: 190 to 200°C
Hot runner temperature: 190 to 200°C

Notes

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

² 10°C/min