Celcon® MC90-HM

Celanese Corporation - Acetal (POM) Copolymer

Sunday, November 3, 2019

General Information

Product Description

Celcon® MC90-HM is a highly mineral filled and coupled M90 material for producing very flat and dimensionally stable parts (normal flow).

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

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.57	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	1.3	%	
Flow	1.5	%	
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	515000	psi	ISO 527-2/1A
Tensile Stress (Yield)	6530	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	6.0	%	ISO 527-2/1A/50
Flexural Modulus (73°F)	508000	psi	ISO 178
Flexural Stress (73°F)	10400	psi	ISO 178
Compressive Stress			ISO 604
1% Strain	4060	psi	
6% Strain	12000	psi	
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	2.3	ft·lb/in²	
73°F	3.0	ft·lb/in²	
Notched Izod Impact Strength (73°F)	2.9	ft·lb/in²	ISO 180/1A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (264 psi, Unannealed)	217	°F	ISO 75-2/A
Vicat Softening Temperature	322	°F	ISO 306/B50
Melting Temperature [2]	329	°F	ISO 11357-3
Melting Temperature	331	°F	
CLTE - Flow	3.3E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	5.0E-5	in/in/°F	ISO 11359-2

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	212 to 248	°F

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Injection	Nominal Value	Unit
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	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