Celcon® CF802

Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

General Information

Product Description

Celcon® acetal copolymer grade CF802 is a conductive, fuel compatible general purpose acetal copolymer. Celcon® CF802 has been developed to dissipate static electricity from fuel handling systems. Please note Celcon® CF802 has special processing considerations to ensure static dissipation properties. Use minimum back pressure and slowest screw speed possible in retracting screw during cooling portion of cycle. Large gate size (>2 mm) recommended. Pneumatic conveying of material long distances is not recommended.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Electrically Conductive • ESD Protection	• Fuel Resistant • General Purpose	
Uses	• General Purpose		
RoHS Compliance	• Contact Manufacturer		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.47	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	1.6	%	
Flow	1.7	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	435000	psi	ISO 527-2/1A
Tensile Stress (Yield)	8990	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	10	%	ISO 527-2/1A/50
Tensile Creep Modulus (1 hr)	309000	psi	ISO 899-1
Tensile Creep Modulus (1000 hr)	152000	psi	ISO 899-1
Flexural Modulus (73°F)	450000	psi	ISO 178
Flexural Stress (3.5% Strain)	10200	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	1.9	ft·lb/in²	
73°F	1.9	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	33	ft·lb/in²	
73°F	33	ft·lb/in²	
Notched Izod Impact Strength			ISO 180/1A
-22°F	2.2	ft·lb/in²	
73°F	2.3	ft·lb/in²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (264 psi, Unannealed)	212	°F	ISO 75-2/A
Vicat Softening Temperature	322	°F	ISO 306/B50
Melting Temperature [2]	333	°F	ISO 11357-3
Melting Temperature	329	°F	
CLTE - Flow	5.6E-5	in/in/°F	ISO 11359-2

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Thermal	Nominal Value	Unit	Test Method
CLTE - Transverse	6.7E-5	in/in/°F	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	2.0E+3	ohms	IEC 60093
Volume Resistivity	3.0E+2	ohms·cm	IEC 60093
Static Decay - 15% RH, +5kV	10	msec	Internal Method

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	347 to 365	°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	< 290	psi

Injection Notes

Zone4 temperature: 185 to 195°C
Hot runner temperature: 190 to 200°C

Notes

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

[2] 10°C/min