Celanex® XFR 6842 GF30

Celanese Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Celanex XFR 6842 GF30 is a halogen and antimony free flame retardant (V-0 @ 0.4 mm) 30% glass reinforced PBT grade with good processability and no corrosive emissions during processing. It is suitable for parts requiring enhanced tracking resistance, toughness, and flame retardancy at <0.75 mm wall thickness. The product is WEEE and RoHS compliant.

General			
Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Additive	• Flame Retardant		
Features	• Antimony Free • Flame Retardant	• Good Processability • Good Toughness	• Halogen Free • Tracking Resistant
Agency Ratings	• EU 2002/96/EC (WEEE)		
RoHS Compliance	• RoHS Compliant		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.53	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/5.0 kg)	18	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	0.80 to 1.0	%	
Flow	0.30 to 0.50	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1.42E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	14800	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.1	%	ISO 527-2/1A/5
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (73°F)	3.3	ft·lb/in²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	17	ft·lb/in²	ISO 179/1eU
Notched Izod Impact Strength (73°F)	3.5	ft·lb/in²	ISO 180/1A
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	83		ISO 2039-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (264 psi, Unannealed)	397	°F	ISO 75-2/A
Vicat Softening Temperature	405	°F	ISO 306/B50
Melting Temperature [2]	437	°F	ISO 11357-3
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	4.0E+16	ohms	IEC 60093
Volume Resistivity	2.0E+16	ohms·cm	IEC 60093
Relative Permittivity (1 MHz)	3.60		IEC 60250
Dissipation Factor (1 MHz)	0.014		IEC 60250
Comparative Tracking Index	525	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.016 in)	V-0		UL 94

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Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248 to 284	°F
Drying Time	4.0 to 6.0	hr
Suggested Max Moisture	0.020	%
Processing (Melt) Temp	482 to 509	°F
Mold Temperature	167 to 194	°F
Injection Pressure	8700 to 14500	psi
Injection Rate	Fast	
Holding Pressure	5800 to 11600	psi
Back Pressure	145 to 435	psi

Notes

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

[2] 10°C/min