CELANEX® XFR 6842 GF15 | PBT | Glass Reinforced

Description

Celanex XFR 6842 GF15 is a halogen and antimony free flame retardant (V-0 @ 0.4 mm) 15% 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.

Physical properties	Value	Unit	Test Standard
Density	**1420**	kg/m³	ISO 1183
Melt volume rate (MVR)	**6.9**	cm³/10min	ISO 1133
MVR test temperature	**250**	°C	ISO 1133
MVR test load	**2.16**	kg	ISO 1133
Mold shrinkage - parallel	**0.5 to 0.7**	%	ISO 294-4
Mold shrinkage - normal	**1.0 to 1.2**	%	ISO 294-4

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	**6500**	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	**79**	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	**3.1**	%	ISO 527-2/1A
Charpy impact strength @ 23°C	**32.0**	kJ/m²	ISO 179/1eU
Charpy notched impact strength @ 23°C	**5.5**	kJ/m²	ISO 179/1eA
Notched impact strength (Izod) @ 23°C	**6.0**	kJ/m²	ISO 180/1A
Rockwell hardness	**83**	M-Scale	ISO 2039-2

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	**225**	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	**194**	°C	ISO 75-1/-2
Vicat softening temperature B50 (50°C/h 50N)	**207**	°C	ISO 306
Flammability at thickness h	**V-0**	class	UL94
thickness tested (h)	**0.4**	mm	UL94

Electrical properties	Value	Unit	Test Standard
Relative permittivity - 1 MHz	**3.3**	-	IEC 60250
Dissipation factor - 1 MHz	**150**	E-4	IEC 60250
Volume resistivity	**2E14**	Ohm*m	IEC 60093
Surface resistivity	**1E16**	Ohm	IEC 60093
Comparative tracking index CTI	**425**	-	IEC 60112

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