

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/m ³	ISO 1183
Melt volume rate (MVR)	6.9	cm ³ /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/m ²	ISO 179/1eU
Charpy notched impact strength @ 23°C	5.5	kJ/m ²	ISO 179/1eA
Notched impact strength (Izod) @ 23°C	6.0	kJ/m ²	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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General Disclaimer

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values.

Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use.

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We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed (+49 (0) 69 30516299 for Europe and +1 859-372-3244 for the Americas) for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.

The products mentioned herein are not intended for use in medical or dental implants.

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