

CELANEX® XFR 6842 GF20

Halogen-free, nom. 20% glass-fiber reinforced, flame retardant (UL94 V-0 @0.4mm) grade
 Celanex XFR 6842 GF20 is a halogen and antimony free flame retardant (V-0 @ 0.4 mm) 20% 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.

Product information

Part Marking Code	> PBT-GF17 FR(30+40) <	ISO 11469
-------------------	------------------------	-----------

Rheological properties

Melt volume-flow rate	5 cm ³ /10min	ISO 1133
Temperature	250 °C	
Load	2.16 kg	
Moulding shrinkage range, parallel	0.3 - 0.5 %	ISO 294-4, 2577
Moulding shrinkage range, normal	0.9 - 1.2 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	7500 MPa	ISO 527-1/-2
Stress at break, 5mm/min	90 MPa	ISO 527-1/-2
Strain at break, 5mm/min	2.7 %	ISO 527-1/-2
Flexural Modulus	7900 MPa	ISO 178
Flexural Strength	150 MPa	ISO 178
Charpy impact strength, 23°C	35 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	6.2 kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	6.9 kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C	6 kJ/m ²	ISO 180/1A
Hardness, Rockwell, M-scale	82	ISO 2039-2

Thermal properties

Melting temperature, 10°C/min	225 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	196 °C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	222 °C	ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	206 °C	ISO 306
Ball pressure test	200 °C	IEC 60695-10-2

Flammability

Burning Behav. at thickness h	V-0 class	UL 94
Thickness tested	0.40 mm	UL 94



CELANEX® XFR 6842 GF20

Electrical properties

Relative permittivity, 1MHz	3.4	IEC 62631-2-1
Dissipation factor, 1MHz	140 E-4	IEC 62631-2-1
Volume resistivity	2E14 Ohm.m	IEC 62631-3-1
Surface resistivity	6E16 Ohm	IEC 62631-3-2
Comparative tracking index	PLC 1 PLC	UL 746A

Other properties

Density	1450 kg/m³	ISO 1183
---------	------------	----------

Characteristics

Additives	Flame retardant
-----------	-----------------

Other Approvals

Other Approvals

OEM	Specification	Additional Information
Li Auto	Q/LiA5310038	2021 (V2)

