

CELANEX® 7416

35% glass-fiber / mineral filled, flame retardant (UL94 V-0) low warp grade, non-exuding

Celanex 7416 is a 35% glass/mineral reinforced, non exuding, flame retarded polybutylene terephthalate which has and excellent balance of mechanical properties and processability. Celanex 7416 is well suited for electrical applications where warp resistance or very flat surfaces are required.

Product information

Part Marking Code	> PBT-(GF+MD)35 FR(17) <	ISO 11469
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Rheological properties

Melt volume-flow rate	10 cm ³ /10min	ISO 1133
Temperature	250 °C	
Load	2.16 kg	

Typical mechanical properties

Tensile Modulus	10500 MPa	ISO 527-1/-2
Stress at break, 5mm/min	95 MPa	ISO 527-1/-2
Strain at break, 5mm/min	1.8 %	ISO 527-1/-2
Charpy impact strength, 23°C	25 kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	25 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	5 kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	5 kJ/m ²	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	225 °C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	60 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	205 °C	ISO 75-1/-2

Flammability

Burning Behav. at thickness h	V-0 class	UL 94
Thickness tested	0.80 mm	UL 94

Electrical properties

Dissipation factor, 1MHz	150 E-4	IEC 62631-2-1
Volume resistivity	>1E13 Ohm.m	IEC 62631-3-1
Surface resistivity	>1E15 Ohm	IEC 62631-3-2
Electric strength	32 kV/mm	IEC 60243-1
Comparative tracking index	PLC 2 PLC	UL 746A

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Other properties

Humidity absorption, 2mm	0.15 %	Sim. to ISO 62
Water absorption, 2mm	0.35 %	Sim. to ISO 62
Density	1770 kg/m ³	ISO 1183

Injection

Drying Temperature	120 - 140 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	0.02 %
Max. mould temperature	75 - 100 °C
Injection speed	medium-fast

Characteristics

Additives	Flame retardant
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