

CELANEX® 5200-2

15% glass-fiber reinforced PBT+PET blend; high gloss; general purpose; lubricated grade
 Celanex 5200-2 is a 15% fiberglass reinforced polyester with improved surface finish. Celanex 5200-2 contains an internal lubricant.

Product information

Part Marking Code	(PBT+PET)-GF1 5	ISO 11469
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Rheological properties

Melt volume-flow rate	38 cm ³ /10min	ISO 1133
Melt mass-flow rate	28 g/10min	ISO 1133
Temperature	265 °C	
Load	2.16 kg	
Melt mass-flow rate, Temperature	265 °C	
Melt mass-flow rate, Load	2.16 kg	
Viscosity number	69 cm ³ /g	ISO 307, 1157, 1628
Moulding shrinkage range, parallel	0.4 - 0.6 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	6000 MPa	ISO 527-1/-2
Stress at break, 5mm/min	120 MPa	ISO 527-1/-2
Strain at break, 5mm/min	3 %	ISO 527-1/-2
Flexural Modulus	8000 MPa	ISO 178
Flexural Strength	185 MPa	ISO 178
Charpy impact strength, 23°C	35 kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	35 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	8 kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	8 kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	7.1 kJ/m ²	ISO 180/1A
Hardness, Rockwell, M-scale	91	ISO 2039-2

Thermal properties

Melting temperature, 10°C/min	250 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	190 °C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	215 °C	ISO 75-1/-2
Temp. of deflection under load, 8 MPa	65 °C	ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	210 °C	ISO 306
Coeff. of linear therm. expansion, parallel	35 E-6/K	ISO 11359-1/-2

Flammability

Burning Behav. at thickness h	HB class	UL 94
Thickness tested	0.75 mm	UL 94
Oxygen index	20 %	ISO 4589-1/-2

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Electrical properties

Relative permittivity, 100Hz	4.3	IEC 62631-2-1
Relative permittivity, 1MHz	4	IEC 62631-2-1
Dissipation factor, 100Hz	11 E-4	IEC 62631-2-1
Dissipation factor, 1MHz	190 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	28 kV/mm	IEC 60243-1
Comparative tracking index	PLC 2 PLC	UL 746A

Other properties

Humidity absorption, 2mm	0.2 %	Sim. to ISO 62
Water absorption, 2mm	0.45 %	Sim. to ISO 62
Density	1410 kg/m³	ISO 1183

Injection

Drying Temperature	120 - 130 °C
Drying Time, Dehumidified Dryer	4 h
Processing Moisture Content	0.02 %
Max. mould temperature	80 - 100 °C
Injection speed	medium-fast

Processing Texts

Pre-drying	To avoid hydrolytic degradation during processing, CELANEX resins have to be dried to a moisture level less than 0.02%. Drying should be done in a dehumidifying hopper dryer capable of dewpoints <-40°F (-40°C) at 250°F (121°C) for 4 hours.
Longer pre-drying times/storage	For subsequent storage of the material in the dryer until processed (<= 60 h) it is necessary to lower the temperature to 100° C.

Other Approvals

Other Approvals	OEM	Specification	Additional Information
	Stellantis - Chrysler	CPN 2425	Black