

CELANEX® 5600-2

CELANEX® PBT

CELANEX® 5600-2 is 55% fiber glass reinforced polyester with excellent dimensional stability and mechanical properties.

Product information

Resin Identification	(PBT+PET)-GF5	ISO 1043
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Part Marking Code	>(PBT+PET)-GF55<	ISO 11469

Rheological properties

Melt mass-flow rate	7.7 g/10min	ISO 1133
Melt mass-flow rate, Temperature	265 °C	
Melt mass-flow rate, Load	2.16 kg	
Moulding shrinkage range, parallel	0.2 - 0.3 %	ISO 294-4, 2577
Moulding shrinkage range, normal	0.3 - 0.5 %	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	20600 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	172 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.4 %	ISO 527-1/-2
Flexural modulus	20500 MPa	ISO 178
Flexural strength	270 MPa	ISO 178
Charpy notched impact strength, 23°C	11 kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	11 kJ/m ²	ISO 179/1eA
Poisson's ratio	0.33 ^[C]	

[C]: Calculated

Thermal properties

Temperature of deflection under load, 1.8 MPa	210 °C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel, 55-160°C	13 E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal, 55-160°C	92 E-6/K	ISO 11359-1/-2

Physical/Other properties

Density	1820 kg/m ³	ISO 1183
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Injection

Drying Recommended	yes
Drying Temperature	120 °C
Drying Time, Dehumidified Dryer	4 h
Processing Moisture Content	≤0.02 %
Melt Temperature Optimum	265 °C
Min. melt temperature	255 °C
Max. melt temperature	275 °C
Screw tangential speed	0.1 - 0.3 m/s
Mold Temperature Optimum	100 °C
Min. mould temperature	90 °C
Max. mould temperature	130 °C

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Characteristics

Processing

Injection Moulding

Additional information

Processing Notes

Pre-Drying

To avoid hydrolytic degradation during processing, CELANEX resins have to be dried to a moisture level equal to or 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.

Storage

For subsequent storage of the material in the dryer until processed (<= 60 h) it is necessary to lower the temperature to 100 °C.

Automotive

OEM

General Motors

STANDARD

GMW18161P-PBT+PET-GF55

ADDITIONAL INFORMATION

Black;ED3002