

CELANEX[®] 5206HG

CELANEX® PBT

Celanex 5206HG is a 15% glass-filled polyester featuring super high surface gloss and high flow for long flow channels. A typical application is oven handles.

Product information Resin Identification	(PBT+PET)-GF1		ISO 1043
Part Marking Code	5 >(PBT+PET)-GF1	15<	ISO 11469
Rheological properties Moulding shrinkage range, parallel	0.4 - 0.6	%	ISO 294-4, 2577
Typical mechanical properties Tensile modulus Tensile stress at break, 5mm/min Tensile strain at break, 5mm/min Flexural modulus Flexural strength Charpy notched impact strength, 23°C Izod notched impact strength, 23°C Poisson's ratio [C]: Calculated	1.8 6300 140 4.7	MPa % MPa MPa kJ/m ² kJ/m ²	ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 178 ISO 178 ISO 179/1eA ISO 180/1A
Thermal properties Melting temperature, 10°C/min Temperature of deflection under load, 1.8 MPa Temperature of deflection under load, 0.45 MPa	250 180 220	°C	ISO 11357-1/-3 ISO 75-1/-2 ISO 75-1/-2
Flammability Burning Behav. at thickness h Thickness tested Physical/Other properties		class mm	IEC 60695-11-10 IEC 60695-11-10
Density	1450	kg/m³	ISO 1183
Injection Drying Recommended Drying Temperature Drying Time, Dehumidified Dryer Processing Moisture Content Melt Temperature Optimum Min. melt temperature Max. melt temperature Screw tangential speed Mold Temperature Optimum Min. mould temperature Max. mould temperature	yes 135 4 ≤0.01 290 270 300 0.1 - 0.3 130 120 140	h % °C °C °C m/s °C °C	

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Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Special characteristics	High Gloss, Specialty appearance
A LINE LEAD OF	

Additional information

Injection molding

Processing

Rear Temperature 480-500 (250-260) deg F (deg C) Center Temperature 490-510 (255-265) deg F (deg C) Front Temperature 500-540 (260-270) deg F (deg C) Nozzle Temperature 510-520 (265-275) deg F (deg C) Melt Temperature 520-570 (270-300) deg F (deg C) Mold Temperature 250-275 (120-135) deg F (deg C) Back Pressure 0-25 psi Screw Speed 50-75 rpm Injection Speed Medium/Fast

Injection speed, injection pressure and holding pressure have to be optimized to the individual article geometry. To avoid material degradation during processing low back pressure and minimum screw speed have to be used. Overheating of the material has to be avoided. Up to 25% clean and dry regrind may be used.

Processing Notes

Pre-Drying

To avoid hydrolytic degradation during processing, Impet resins have to be dried to a moisture level equal to or less than 0.01%. Drying should be done in a dehumidifying hopper dryer capable of dewpoints <-40°F (-40°C) at 275°F (135°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.

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