

CELANEX® 5206HG

15% GF Polyester, Super High Surface Gloss

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.

Rheological properties

Moulding shrinkage, parallel	0.4 - 0.6 %	ISO 294-4, 2577
------------------------------	-------------	-----------------

Typical mechanical properties

Tensile Modulus	6400 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
Flexural Modulus	6300 MPa	ISO 178
Flexural Strength	135 MPa	ISO 178
Charpy notched impact strength, 23°C	4.7 kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	4.5 kJ/m²	ISO 180/1A

Thermal properties

Melting temperature, 10°C/min	250 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	180 °C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	220 °C	ISO 75-1/-2

Flammability

Burning Behav. at thickness h	HB class	UL 94
Thickness tested	0.80 mm	UL 94

Other properties

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

Injection

Drying Temperature	135 °C
Drying Time, Dehumidified Dryer	4 h
Max. mould temperature	120 - 135 °C

Additional information

Injection molding	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



CELANEX® 5206HG

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 Texts

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.

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.

Injection molding

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.

