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)-GF55	ISO 1043
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	509	°F	
Melt mass-flow rate, Load	4.76	lb	
Molding shrinkage range, parallel	0.2 - 0.3	%	ISO 294-4, 2577
Molding shrinkage range, normal	0.3 - 0.5	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	2.99E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	24900	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.4	%	ISO 527-1/-2
Flexural modulus	2.97E6	psi	ISO 178
Flexural strength	38600	psi	ISO 178
Charpy notched impact strength, 23°C	5.23	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	5.23	ftlb/in²	ISO 179/1eA

Thermal properties

Temperature of deflection under load, 1.8 MPa	410	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel, 55-160°C	0.0722	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal, 55-160°C	0.511	E-4/°F	ISO 11359-1/-2

Physical/Other properties

Density	0.0657	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	248	°F
Drying Time, Dehumidified Dryer	4	h
Processing Moisture Content	≤0.02	%
Melt Temperature Optimum	509	°F
Min. melt temperature	491	°F
Max. melt temperature	527	°F
Max. screw tangential speed	0.1 - 0.3	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	194	°F
Max. mold temperature	266	°F

Revised: 2025-05-16 Source: Celanese Materials Database

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Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
General Motors	GMW18161P-PBT+PET-GF55	Black;ED3002

Characteristics

Processing	Injection Molding

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.

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