Celanese
The chemistry inside innovation™

CELANEX® 6400-2

CELANEX® PBT

40% glass/mineral reinforced polyester, providing warp resistance and improved surface finish.

Product information

Resin Identification	(PBT+PET)-(GF+MD)40	ISO 1043
Part Marking Code	>(PBT+PET)-(GF+MD)40<	ISO 11469

Rheological properties

Melt mass-flow rate	17	g/10min	ISO 1133
Melt mass-flow rate, Temperature	509	°F	
Melt mass-flow rate, Load	4.76	lb	
Viscosity number	1940	in³/lb	ISO 307, 1628
Molding shrinkage range, parallel	0.1 - 0.2	%	ISO 294-4, 2577
Molding shrinkage range, normal	0.4 - 0.6	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	1.74E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	16000	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2	%	ISO 527-1/-2
Flexural modulus	1.6E6	psi	ISO 178
Flexural strength	26100	psi	ISO 178
Charpy notched impact strength, 23°C	3.23	ftlb/in²	ISO 179/1eA
Izod notched impact strength, 23°C	2.85	ftlb/in²	ISO 180/1A
Izod notched impact strength, -30°C	2.85	ftlb/in²	ISO 180/1A

Thermal properties

Temperature of deflection under load, 1.8 MPa	392	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	428	°F	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	428	°F	ISO 306
Coefficient of linear thermal expansion (CLTE), parallel	0.14	E-4/°F	ISO 11359-1/-2

Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Water absorption, 2mm	0.5	%	Sim. to ISO 62
Density	0.0599	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	ADDITIONAL INFORMATION
General Motors	Special Parts Approval, See Your CE Account Representative for Further Details.

Characteristics

Processing	Injection Molding
Additives	Release agent
Special characteristics	High Gloss, Low Warpage

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.

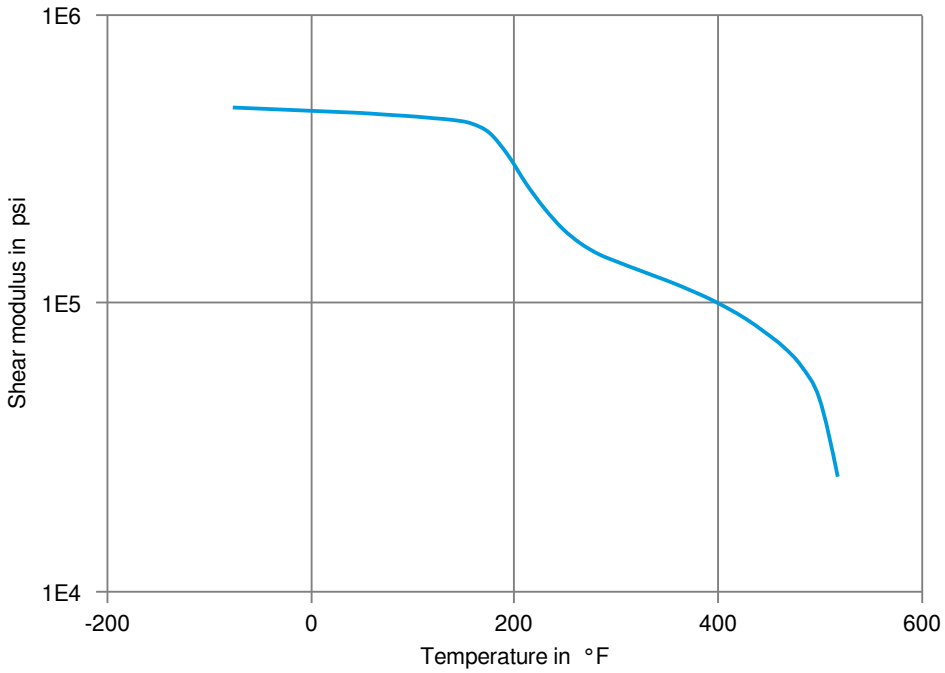
Storage

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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Dynamic Shear modulus-temperature



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