CELANEX® 6500HF

CELANEX® PBT

6500HF is a high flow, 30% glass/mineral filled polybutylene terephthalate (PBT) with improved warp resistance and surface smoothness.

Product information

Resin Identification	(PBT+PET)-(GF+MD)30	ISO 1043
Part Marking Code	>(PBT+PET)-(GF+MD)30<	ISO 11469

Rheological properties

Melt mass-flow rate	42	g/10min	ISO 1133
Melt mass-flow rate, Temperature	509	°F	
Melt mass-flow rate, Load	4.76	lb	
Molding shrinkage range, parallel	0 - 0.5	%	ISO 294-4, 2577
Molding shrinkage range, normal	0.5 - 0.8	%	ISO 294-4, 2577

Typical mechanical properties

Shore D hardness, 15s	85		ISO 48-4 / ISO 868
Tensile modulus	1.41E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	18100	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.2	%	ISO 527-1/-2
Flexural modulus	1.38E6	psi	ISO 178
Flexural strength	26100	psi	ISO 178
Charpy impact strength, 23°C	12.8	ftlb/in²	ISO 179/1eU
Charpy impact strength, -30°C	11.4	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	3.19	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	3.43	ftlb/in²	ISO 179/1eA
Izod notched impact strength, 23°C	2.52	ftlb/in²	ISO 180/1A
Hardness, Rockwell, M-scale	91		ISO 2039-2

Thermal properties

Melting temperature, 10°C/min	437	°F	ISO 11357-1/-3
Glass transition temperature, 10°C/min	129	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	396	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	433	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.16	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.472	E-4/°F	ISO 11359-1/-2

Electrical properties

Relative permittivity, 100Hz	3.3		IEC 62631-2-1
Relative permittivity, 1MHz	3.1		IEC 62631-2-1
Dissipation factor, 1MHz	120	E-4	IEC 62631-2-1
Volume resistivity	1E14	Ohm.m	IEC 62631-3-1
Surface resistivity	6E16	Ohm	IEC 62631-3-2
Electric strength	787	kV/in	IEC 60243-1
Comparative tracking index	325		IEC 60112

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Physical/Other properties

Humidity absorption, 2mm	0.19	%	Sim. to ISO 62
Density	0.056	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

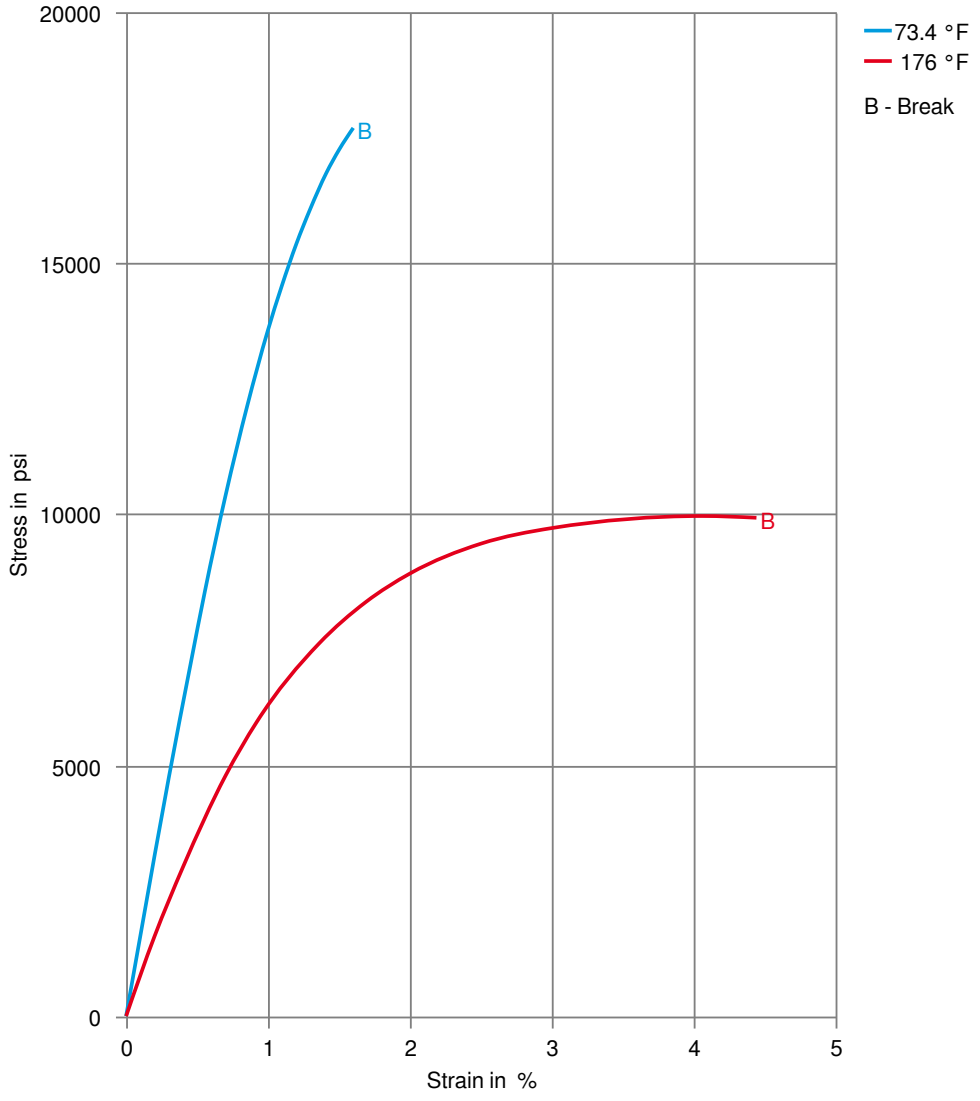
Characteristics

Processing	Injection Molding
Special characteristics	High Gloss, High Flow, Low Warpage

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Stress-strain

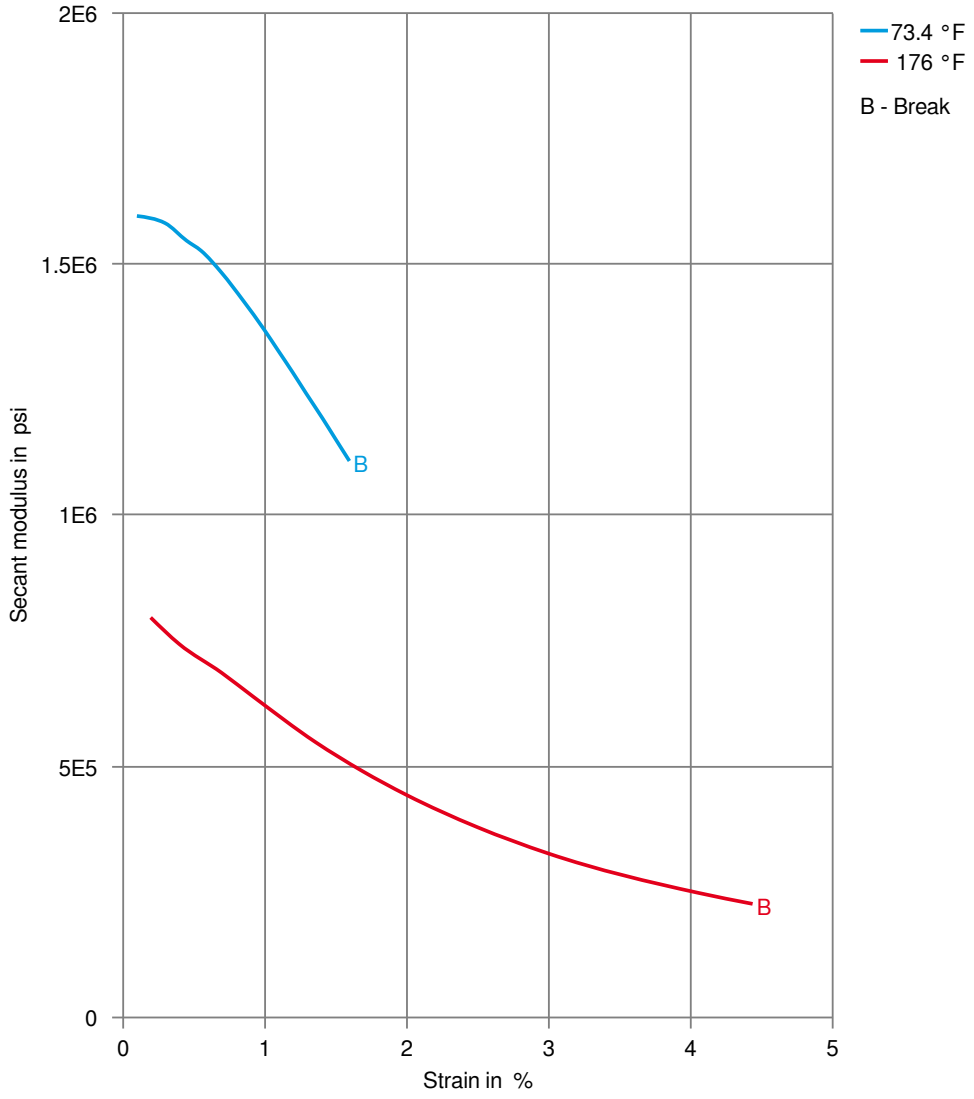


Revised: 2026-04-23 Source: Celanese Materials Database

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Secant modulus-strain



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