Celanese
The chemistry inside innovation™

CELANEX® J600

CELANEX® PBT

Celanex J-600 is a 40% glass/mineral reinforced resin providing excellent warpage resistance, surface gloss and good mechanical properties. Celanex J-600 is particularly suited to applications requiring flatness and good surface appearance in large parts, such as exterior automotive components.

Product information

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

Rheological properties

Melt volume-flow rate	18	cm^3/10min	ISO 1133
Temperature	265	°C	
Load	2.16	kg	
Melt mass-flow rate	11	g/10min	ISO 1133
Melt mass-flow rate, Temperature	265	°C	
Melt mass-flow rate, Load	2.16	kg	
Viscosity number	55	cm^3/g	ISO 307, 1628
Moulding shrinkage range, parallel	0.4 - 0.9	%	ISO 294-4, 2577
Moulding shrinkage range, normal	0.6 - 1.2	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	11000	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	95	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.1	%	ISO 527-1/-2
Flexural modulus	11000	MPa	ISO 178
Flexural strength	160	MPa	ISO 178
Charpy impact strength, 23°C	38	kJ/m^2	ISO 179/1eU
Charpy impact strength, -30°C	40	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	6.5	kJ/m^2	ISO 179/1eA
Charpy notched impact strength, -30°C	6.5	kJ/m^2	ISO 179/1eA
Izod notched impact strength, 23°C	5.1	kJ/m^2	ISO 180/1A
Izod impact strength, 23°C	30	kJ/m^2	ISO 180/1U
Hardness, Rockwell, M-scale	69		ISO 2039-2
Poisson's ratio	0.34[C]		

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	260	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	190	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	220	°C	ISO 75-1/-2
Temperature of deflection under load, 8 MPa	80	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	205	°C	ISO 306
Coefficient of linear thermal expansion (CLTE), parallel	20	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	68	E-6/K	ISO 11359-1/-2

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Flammability

Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.82	mm	IEC 60695-11-10
Oxygen index	22	%	ISO 4589-1/-2

Electrical properties

Relative permittivity, 100Hz	5.1		IEC 62631-2-1
Relative permittivity, 1MHz	4.4		IEC 62631-2-1
Dissipation factor, 100Hz	100	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	220	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm.m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2
Electric strength	35	kV/mm	IEC 60243-1
Comparative tracking index	350		IEC 60112
Arc Resistance	118	s	UL 746B

Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Water absorption, 2mm	0.4	%	Sim. to ISO 62
Water absorption, Immersion 24h	0.07	%	Sim. to ISO 62
Density	1620	kg/m³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	120	°C
Drying Time, Dehumidified Dryer	4	h
Processing Moisture Content	≤0.02	%
Melt Temperature Optimum	265	°C
Min. melt temperature	255	°C
Max. melt temperature	275	°C
Screw tangential speed	0.1 - 0.3	m/s
Mold Temperature Optimum	80	°C
Min. mould temperature	60	°C
Max. mould temperature	130	°C

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Special characteristics	High impact or impact modified, 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

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(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.

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
Stellantis	B62 0300 / 61/218E/215M/C1/C1B	01378_20_04238, CPN2666 BLACK, CPN2810 NATURAL
Stellantis - Chrysler	MS.50103 / CPN-2666	Black
Stellantis - Chrysler	MS.50103 / CPN-2810	Natural