



Celanex® J600

Celanese Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

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.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass\Mineral, 40% Filler by Weight		
Features	• Good Gloss	• Pleasing Surface Appearance	• Warp Resistant
Uses	• Automotive Applications	• Automotive Exterior Parts	
RoHS Compliance	• Contact Manufacturer		
Automotive Specifications	• ASTM D5927 TPES061 R40 Color: Black • CHRYSLER MS-DB-400 CPN2666 Color: Black	• CHRYSLER MS-DB-400 CPN2810 Color: Natural • GM GMP.PBT+PET.003	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.62	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (265°C/2.16 kg)	11	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (265°C/2.16 kg)	18	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	0.60 to 1.2	%	
Flow	0.40 to 0.90	%	
Water Absorption (Saturation, 73°F)	0.40	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.60E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	13800	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.1	%	ISO 527-2/1A/5
Flexural Modulus			ISO 178
73°F	1.60E+6	psi	
176°F	638000	psi	
Flexural Stress			ISO 178
73°F	22500	psi	
176°F	10100	psi	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	3.1	ft-lb/in ²	
73°F	3.1	ft-lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	19	ft-lb/in ²	
73°F	18	ft-lb/in ²	

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Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength (73°F)	2.4	ft-lb/in ²	ISO 180/1A
Unnotched Izod Impact Strength (73°F)	14	ft-lb/in ²	ISO 180/1U
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	69		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	428	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	374	°F	ISO 75-2/A
Heat Deflection Temperature (1160 psi, Unannealed)	176	°F	ISO 75-2/C
Vicat Softening Temperature	401	°F	ISO 306/B50
Melting Temperature ²	437	°F	ISO 11357-3
CLTE - Flow	1.1E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	3.8E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+15	ohms·cm	IEC 60093
Electric Strength	890	V/mil	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	5.10		
1 MHz	4.40		
Dissipation Factor			IEC 60250
100 Hz	0.010		
1 MHz	0.022		
Comparative Tracking Index	350	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.03 in)	HB		UL 94
Oxygen Index	22	%	ISO 4589-2

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248 to 266	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.020	%
Hopper Temperature	68 to 122	°F
Rear Temperature	446 to 482	°F
Middle Temperature	455 to 491	°F
Front Temperature	455 to 491	°F
Nozzle Temperature	482 to 509	°F
Processing (Melt) Temp	455 to 509	°F
Mold Temperature	149 to 205	°F
Injection Rate	Moderate-Fast	

Injection Notes

Die Temperature: 240 to 265°C
Feed Temperature: 230 to 250°C
Zone 4 Temperature: 240 to 265°C

Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min