

Celanex® J600

Polybutylene Terephthalate

Celanese Corporation

Message:

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 Information			
UL YellowCard	E45575-239418		
Filler / Reinforcement	Glass \mineral, 40% filler by weight		
Features	Highlight		
	Bending resistance		
	Excellent appearance		
Uses	Application in Automobile Field		
	Automotive exterior parts		
RoHS Compliance	Contact manufacturer		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.62	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR)	11	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (265°C/2.16 kg)	18.0	cm ³ /10min	ISO 1133
Molding Shrinkage			
Flow	0.40 - 0.60	%	ASTM D955
Vertical flow direction	0.60 - 1.2	%	ISO 294-4
Flow direction	0.40 - 0.90	%	ISO 294-4
Water Absorption (Equilibrium, 23°C, 50% RH)	0.20	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	69		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
23°C	10300	MPa	ASTM D638
--	11000	MPa	ISO 527-2/1A/1
Tensile Strength			
Fracture, 23°C	96.5	MPa	ASTM D638
Fracture	95.0	MPa	ISO 527-2/1A/5
Tensile Elongation			
Fracture, 23°C	2.0	%	ASTM D638
Fracture	2.1	%	ISO 527-2/1A/5

Flexural Modulus (23°C)	11000	MPa	ISO 178
Flexural Stress (23°C)	155	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	6.5	kJ/m ²	ISO 179/1eA
23°C	6.5	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	40	kJ/m ²	ISO 179/1eU
23°C	38	kJ/m ²	ISO 179/1eU
Notched Izod Impact (23°C)	5.1	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength (23°C)	30	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	220	°C	ISO 75-2/B
1.8 MPa, not annealed	193	°C	ASTM D648
1.8 MPa, not annealed	190	°C	ISO 75-2/A
8.0 MPa, not annealed	80.0	°C	ISO 75-2/C
Vicat Softening Temperature	205	°C	ISO 306/B50
Melting Temperature ¹	225	°C	ISO 11357-3, ASTM D3418
Linear thermal expansion coefficient			ISO 11359-2
Flow	2.0E-5	cm/cm/°C	ISO 11359-2
Lateral	6.8E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity			
--	1.0E+16	ohms·cm	ASTM D257
--	> 1.0E+15	ohms·cm	IEC 60093
Dielectric Strength			
-- ²	22	kV/mm	ASTM D149
--	35	kV/mm	IEC 60243-1
Dielectric Constant			
1 MHz	4.10		ASTM D150
100 Hz	5.10		IEC 60250
1 MHz	4.40		IEC 60250
Dissipation Factor			
1 MHz	0.025		ASTM D150
100 Hz	0.010		IEC 60250
1 MHz	0.022		IEC 60250
Arc Resistance	118	sec	ASTM D495
Comparative Tracking Index	350	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.820 mm)	HB		UL 94

Oxygen Index	22	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	120 - 130	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	20.0 - 50.0	°C	
Rear Temperature	230 - 250	°C	
Middle Temperature	235 - 255	°C	
Front Temperature	235 - 255	°C	
Nozzle Temperature	240 - 265	°C	
Processing (Melt) Temp	235 - 265	°C	
Mold Temperature	65.0 - 96.0	°C	
Injection Rate	Moderate-Fast		
Injection instructions			
Manifold Temperature: 250 to 265°CZone 4 Temperature: 240 to 265°CFeed Temperature: 230 to 250°C			
NOTE			
1.	10°C/min		
2.	Method A (short time)		

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