



Celanex® 6500

Celanese Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Celanex 6500 is a 30% glass/mineral polyester with improved surface finish and a good balance of mechanical properties and processability.

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass\Mineral, 30% Filler by Weight
Features	• Good Processability • Good Surface Finish
RoHS Compliance	• Contact Manufacturer
Automotive Specifications	• ASTM D5927 TPES061 R30 Color: Black • ASTM D5927 TPES061 R30 Color: Colors • ASTM D5927 TPES061 R30 Color: Natural • CHRYSLER MS-DB-400 CPN3763 Color: 100% Color Match • CHRYSLER MS-DB-400 CPN3764 Color: Color as Noted on Drawing • DELCO 9599-50 • FORD ESE-M4D341-A2 • FORD WSB-M4D921-A • GM GMP.PBT+PET.001 • GM GMP.PBT+PET.004 Color: Black • GM GMP.PBT+PET.004 Color: Natural • VALEO VMS-8608 Color: Black • VALEO VMS-8608 Color: Natural

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.55	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (265°C/2.16 kg)	22	g/10 min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	0.50 to 0.80	%	
Flow	0.0 to 0.50	%	
Water Absorption (Saturation, 73°F)	0.40	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.19	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.41E+6	psi	ISO 527-2/1A
Tensile Stress (Break)	18100	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.2	%	ISO 527-2/1A/5
Flexural Modulus			ISO 178
73°F	1.38E+6	psi	
176°F	555000	psi	
Flexural Stress			ISO 178
73°F	26100	psi	
176°F	11300	psi	

Celanex® 6500

Celanese Corporation - Polybutylene Terephthalate

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	3.0	ft-lb/in ²	
73°F	3.4	ft-lb/in ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	14	ft-lb/in ²	
73°F	14	ft-lb/in ²	
Notched Izod Impact Strength (73°F)	2.5	ft-lb/in ²	ISO 180/1A
Unnotched Izod Impact Strength (73°F)	15	ft-lb/in ²	ISO 180/1U
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	89		ISO 2039-2
Shore Hardness (Shore D, 15 sec)	85		ISO 868
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	433	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	396	°F	ISO 75-2/A
Glass Transition Temperature ²	129	°F	ISO 11357-2
Melting Temperature ²	437	°F	ISO 11357-3
CLTE - Flow	1.6E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	4.7E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	3.0E+16	ohms	IEC 60093
Volume Resistivity	2.0E+16	ohms-cm	IEC 60093
Electric Strength	560	V/mil	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	3.50		
1 MHz	3.80		
Dissipation Factor (1 MHz)	0.040		IEC 60250
Comparative Tracking Index	325	V	IEC 60112

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248 to 266	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.020	%
Suggested Max Re grind	25	%
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	
Back Pressure	0.00 to 50.0	psi

Injection Notes

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

Celanex® 6500

Celanese Corporation - Polybutylene Terephthalate

Notes

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

² 10°C/min
