Celanex® 2300 GV3/30

Polybutylene Terephthalate

Celanese Corporation

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Technical Data

Product Description	
30% Glass bead reinforced grade Chemical abbreviation according to ISO 1043-1: PBT Moulding compound ISO 7792- PBT, MGHR, 08-040N, GB30 Polybutylene terephthalate, low warpage, 30 % glass beads. Flammability UL 94 HB minimum thickness 0.82 mm. Recognition by Underwriters Laboratories, USA (UL)	

General			
Material Status	• Commercial: Active		
Literature [1]	• Technical Datasheet		
UL Yellow Card [2]	• E42337-234654 • E45575-103496723		
Search for UL Yellow Card	• Celanese Corporation • Celanex®		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber		
Additive	• Mold Release		
Features	• Good Heat Resistance		
Forms	• Pellets		
Processing Method	• Injection Molding		
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1) • Secant Modulus vs. Strain (ISO 11403-1) • Shear Modulus vs. Temperature, Dynamic (ISO 11403-1) • Shear Stress vs. Shear Rate (ISO 11403-1) • Viscosity vs. Shear Rate (ISO 11403-2)		

Physical	Nominal Value	Unit	Test Method
Density	1.55	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	10	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.2 to 1.6	%	
Flow	1.4 to 1.9	%	
Water Absorption			ISO 62
Saturation, 23°C	0.40	%	
Equilibrium, 23°C, 50% RH	0.15	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	4000	MPa	ISO 527-1
Tensile Stress (Break)	50.0	MPa	ISO 527-2/5
Tensile Strain (Break)	3.0	%	ISO 527-2/5
Tensile Creep Modulus			ISO 899-1
1 hr	3600	MPa	
1000 hr	2500	MPa	
Flexural Stress (23°C)	80.0	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	3.3	kJ/m²	
23°C	3.3	kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	23	kJ/m²	
23°C	22	kJ/m²	

Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness [4]	180	MPa	ISO 2039-1

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	190	°C	ISO 75-2/B
1.8 MPa, Unannealed	90.0	°C	ISO 75-2/A
Vicat Softening Temperature	195	°C	ISO 306/B50
Melting Temperature [5]	225	°C	ISO 11357-3
CLTE - Flow	1.0E-4	cm/cm/°C	ISO 11359-2

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity (23°C)	> 1.0E+15	ohms	IEC 62631-3-2
Volume Resistivity (23°C)	> 1.0E+13	ohms·m	IEC 62631-3-1
Electric Strength [6] (23°C)	28	kV/mm	IEC 60243-1
Dielectric Constant			IEC 60250
100 Hz	4.60		
1 MHz	4.40		
Dissipation Factor			IEC 60250
100 Hz	9.0E-3		
1 MHz	0.012		
Comparative Tracking Index (CTI)	PLC 2		UL 746A
Comparative Tracking Index [7]	250	V	IEC 60112

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.8 mm	HB		
1.6 mm	HB		
Oxygen Index	22	%	ISO 4589-2

Injection	Nominal Value	Unit
Drying Temperature	120 to 140	°C
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Hopper Temperature	20 to 50	°C
Injection Feed Temperature	190 to 200	°C
Rear Temperature	250 to 260	°C
Middle Temperature	250 to 260	°C
Front Temperature	255 to 265	°C
Injection Zone 4 Temperature	255 to 265	°C
Nozzle Temperature	260 to 270	°C
Processing (Melt) Temp	260 to 270	°C
Mold Temperature	75 to 100	°C
Injection Rate	Fast	
Hot Runner	260 to 270	°C
Screw Speed		
2.50 cm	90	
4.00 cm	75	
5.50 cm	60	

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Notes

[1] These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

[2] A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

[3] Typical properties: these are not to be construed as specifications.

[4] 30s

[5] 10°C/min

[6] AC

[7] 50 drops

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Where to Buy

Supplier

Celanese Corporation
Florence, Florence USA
Telephone: 800-833-4882
Web: https://www.celanese.com/

Distributor

Amco Polymers
Telephone: 800-262-6685
Web: http://www.amcopolymers.com/
Availability: North America

Channel Prime Alliance
Telephone: 800-247-8038
Web: http://www.channelpa.com/
Availability: North America

Entec Polymers
Telephone: 833-319-0299
Web: https://www.entecpolymers.com/?utm_source=ul&utm_medium=paid%20association&utm_campaign=entec%20%7C%20entec%201&utm_term=ul%20%7C%20where%20to%20buy
Availability: North America

Entec Polymers Latin America
Contact Entec Polymers for availability of individual products by country.
Web: https://www.entecpolymers.com/
Availability: Latin America

RESINEX Group
RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.
Telephone: +32-14-672511
Web: http://www.resinex.com/
Availability: Europe

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