Impet® 2700 GV1/30

Polyethylene Terephthalate

Celanese Corporation

Message:

30% glass filled Polyethylene terephthalate (PET) with high flowability, excellent gloss, high modulus, and high heat deflection temperature.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Features	Rigidity, high Highlight High liquidity		
RoHS Compliance	Contact manufacturer		
Forms	Particle		
Processing Method	Injection molding		
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.60	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Vertical flow direction	0.70	%	ISO 294-4
Flow direction	0.90	%	ISO 294-4
Water Absorption (Equilibrium, 23°C, 50% RH)	0.15	%	ISO 62
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	123		ISO 2039-2
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	11500	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	168	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.0	%	ISO 527-2/1/5
Flexural Modulus (23°C)	11100	MPa	ISO 178
Flexural Stress (23°C)	225	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	8.8	kJ/m²	ISO 179/1eA
23°C	8.8	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	28	kJ/m²	ISO 179/1eU
23°C	28	kJ/m²	ISO 179/1eU
Notched Izod Impact (23°C)	7.3	kJ/m²	ISO 180/1A
Thermal	**Nominal Value**	**Unit**	**Test Method**

Heat Deflection Temperature			
0.45 MPa, not annealed	252	°C	ISO 75-2/B
1.8 MPa, not annealed	225	°C	ISO 75-2/A
8.0 MPa, not annealed	135	°C	ISO 75-2/C
Glass Transition Temperature [1]	80.0	°C	ISO 11357-2
Vicat Softening Temperature	260	°C	ISO 306/B50
Melting Temperature [2]	251	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow	2.1E-5	cm/cm/°C	ISO 11359-2
Lateral	6.4E-5	cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 3.0E+15	ohms	IEC 60093
Volume Resistivity	2.0E+16	ohms·cm	IEC 60093
Dielectric Strength	33	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	4.80		IEC 60250
1 MHz	4.20		IEC 60250
Dissipation Factor			IEC 60250
100 Hz	0.013		IEC 60250
1 MHz	0.018		IEC 60250
Comparative Tracking Index	170	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.800 mm	HB		UL 94
1.60 mm	HB		UL 94
Oxygen Index	25	%	ISO 4589-2
Injection	**Nominal Value**	**Unit**	
Drying Temperature	120 - 140	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.010	%	
Hopper Temperature	20.0 - 50.0	°C	
Rear Temperature	260 - 270	°C	
Middle Temperature	270 - 280	°C	
Front Temperature	280 - 290	°C	
Nozzle Temperature	270 - 290	°C	
Processing (Melt) Temp	270 - 290	°C	
Mold Temperature	135 - 145	°C	
Injection Pressure	60.0 - 90.0	MPa	
Injection Rate	Fast		
Holding Pressure	30.0 - 50.0	MPa	
Back Pressure	1.00 - 2.00	MPa	
Screw Speed	50 - 80	rpm	

Injection instructions
Feed Temperature: 40 to 60°CZone 4 Temperature: 280 to 290°CManifold Temperature: 270 to 290°C

NOTE	
1.	10°C/min
2.	10°C/min

Recommended distributors for this material

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