

Panlite® GS-3420

TEIJIN LIMITED - Polycarbonate

General Information			
Product Description			
Glass fiber reinforced grades-20% Glass fiber, Frictional wear resistant grade			
General			
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Properties	• Creep Resistant	• High Rigidity	• Wear Resistant
Uses	• Industrial Applications		
Forms	• Pellets		
Processing Method	• Injection Molding		
ASTM & ISO Properties ¹			
Physical	Nominal Value	Unit	Test Method
Density	1.42	g/cm³	ISO 1183
Molding Shrinkage			Internal Method
Across Flow : 4.00 mm	0.40 to 0.60	%	
Flow : 4.00 mm	0.10 to 0.30	%	
Water Absorption (24 hr, 23°C)	0.12	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	6000	MPa	ISO 527-1/1
Tensile Stress (Break, 23°C)	85.0	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	3.0	%	ISO 527-2/5
Flexural Modulus ² (23°C)	5500	MPa	ISO 178
Flexural Stress ² (23°C)	133	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	12	kJ/m²	ISO 179
Charpy Unnotched Impact Strength (23°C)	43	kJ/m²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/B
0.45 MPa, Unannealed	149	°C	
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Unannealed	146	°C	
Vicat Softening Temperature	152	°C	ISO 306/B50
CLTE - Flow	3.0E-5	cm/cm/°C	ISO 11359-2
CLTE - Transverse	6.0E-5	cm/cm/°C	ISO 11359-2
RTI Elec (1.5 mm)	130	°C	UL 746B
RTI Imp (1.5 mm)	120	°C	UL 746B
RTI Str (1.5 mm)	130	°C	UL 746B
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 ³	35	kV/mm	IEC 60243-1

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Electrical	Nominal Value	Unit	Test Method
Dielectric Constant			IEC 60250
100 Hz	3.40		
1 MHz	3.40		
Relative Permittivity			IEC 60250
100 Hz	3.40		
1 MHz	3.40		
Dissipation Factor			IEC 60250
100 Hz	1.0E-3		
1 MHz	9.0E-3		
Comparative Tracking Index	175	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.38 mm	V-2		
3.0 mm	V-1		

Processing Information		
Injection	Nominal Value	Unit
Drying Temperature	120	°C
Drying Time	> 5.0	hr
Processing (Melt) Temp	280 to 310	°C
Mold Temperature	80 to 120	°C

Notes

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

² 2.0 mm/min

³ short time test