

Panlite® GN-3420R

TEIJIN LIMITED - Polycarbonate

General Information

Product Description

Glass fiber reinforced grades - 20% Glass fiber, Flame resistant grade

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Features	• Creep Resistant	• Flame Retardant	• High Rigidity
Uses	• Electrical Parts	• Industrial Applications	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.36	g/cm ³	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)	0.14	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	5950	MPa	ISO 527-2/1
Tensile Stress (Break)	90.0	MPa	ISO 527-2/5
Tensile Strain (Break)	3.0	%	ISO 527-2/5
Flexural Modulus ²	5450	MPa	ISO 178
Flexural Stress ²	140	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	9.0	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength	40	kJ/m ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (0.45 MPa, Unannealed)	149	°C	ISO 75-2/B
Heat Deflection Temperature (1.8 MPa, Unannealed)	146	°C	ISO 75-2/A
Vicat Softening Temperature	151	°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 746
RTI Imp (1.5 mm)	120	°C	UL 746
RTI Str (1.5 mm)	130	°C	UL 746

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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
Dielectric Constant			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
0.43 mm	V-2		
1.5 mm	V-0		
Glow Wire Flammability Index			IEC 60695-2-12
1.0 mm	960	°C	
3.0 mm	960	°C	
Glow Wire Ignition Temperature			IEC 60695-2-13
1.0 mm	930	°C	
3.0 mm	900	°C	

Notes

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

² 2.0 mm/min

³ short time test