

Panlite® GN-3630H

TEIJIN LIMITED - Polycarbonate

General Information

Product Description

Glass fiber reinforced grades - 30% Glass fiber, Low anisotropy grade, Flame resistant

General

Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Properties	• Creep Resistant • High Rigidity • Flame Retardant • Low Anisotropy
Uses	• Camera Applications • Electrical Parts • Industrial Applications
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.43	g/cm ³	ISO 1183
Molding Shrinkage			Internal Method
Across Flow : 4.00 mm	0.30 to 0.50	%	
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)	6800	MPa	ISO 527-1/1
Tensile Stress (Break, 23°C)	85.0	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	1.0	%	ISO 527-2/5
Flexural Modulus ² (23°C)	6500	MPa	ISO 178
Flexural Stress ² (23°C)	142	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	7.0	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	35	kJ/m ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/B
0.45 MPa, Unannealed	143	°C	
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Unannealed	140	°C	
Vicat Softening Temperature	146	°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 (0.40 mm)	80.0	°C	UL 746B
RTI Imp (0.40 mm)	80.0	°C	UL 746B
RTI Str (0.40 mm)	80.0	°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	3.50		
1 MHz	3.50		
Relative Permittivity			IEC 60250
100 Hz	3.50		
1 MHz	3.50		
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
0.40 mm	V-2		
1.0 mm ⁴	V-1		
1.6 mm	V-0		
Glow Wire Flammability Index			IEC 60695-2-12
1.0 mm	930	°C	
3.0 mm	960	°C	
Glow Wire Ignition Temperature			IEC 60695-2-13
1.0 mm	850	°C	
3.0 mm	825	°C	

Processing Information		
Injection	Nominal Value	Unit
Drying Temperature	120	°C
Drying Time	5.0 to 8.0	hr
Processing (Melt) Temp	270 to 320	°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

⁴ Acquisition only black