

NORYL™ GFN1 resin

Polyphenylene Ether + PS

SABIC Innovative Plastics

Message:

NORYL GFN1 is a standard 10 % glass fibre reinforced material with a HDT/A of 110C according ISO 75. NORYL GFN1 can be used for all applications where a higher modulus is required. NORYL GFN1 is available in all colours.

General Information			
UL YellowCard	E45329-236754		
Filler / Reinforcement	Glass fiber reinforced material, 10% filler by weight		
RoHS Compliance	RoHS compliance		
Appearance	Available colors		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.17	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (280°C/5.0 kg)	8.00	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow ¹	0.30 - 0.50	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.20	%	ISO 62
Equilibrium, 23°C, 50% RH	0.060	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	100	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	4000	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/5
Yield	50.0	MPa	ISO 527-2/5
Fracture	45.0	MPa	ISO 527-2/5
Tensile Strain			ISO 527-2/5
Yield	3.0	%	ISO 527-2/5
Fracture	4.0	%	ISO 527-2/5
Flexural Modulus ²	3500	MPa	ISO 178
Flexural Stress	95.0	MPa	ISO 178
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	50.0	mg	Internal method
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength ³			ISO 179/1eU
-30°C	25	kJ/m ²	ISO 179/1eU
23°C	25	kJ/m ²	ISO 179/1eU
Unnotched Izod Impact Strength ⁴			ISO 180/1U
-30°C	20	kJ/m ²	ISO 180/1U

23°C	20	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁵			
0.45 MPa, unannealed, 100 mm span	130	°C	ISO 75-2/Be
1.8 MPa, unannealed, 100 mm span	115	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	135	°C	ISO 306/A50
--	125	°C	ISO 306/B50
--	130	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 80°C	5.0E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 80°C	7.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.24	W/m/K	ISO 8302
RTI Elec	50.0	°C	UL 746
RTI Imp	50.0	°C	UL 746
RTI	50.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	1.0E+15	ohms·cm	IEC 60093
Dielectric Strength (3.20 mm, in Oil)	18	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
50 Hz	2.80		IEC 60250
60 Hz	2.80		IEC 60250
1 MHz	2.80		IEC 60250
Dissipation Factor			IEC 60250
50 Hz	5.0E-4		IEC 60250
60 Hz	5.0E-4		IEC 60250
1 MHz	1.0E-3		IEC 60250
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm)	HB		UL 94
Glow Wire Flammability Index (3.20 mm)	750	°C	IEC 60695-2-12
Oxygen Index	26	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	100 - 120	°C	
Drying Time	2.0 - 3.0	hr	
Hopper Temperature	60.0 - 80.0	°C	
Rear Temperature	240 - 260	°C	
Middle Temperature	260 - 280	°C	
Front Temperature	280 - 300	°C	
Nozzle Temperature	260 - 280	°C	
Processing (Melt) Temp	280 - 300	°C	

Mold Temperature	80.0 - 120	°C
NOTE		
1.	Tensile Bar	
2.	2.0 mm/min	
3.	80*10*4 sp=62mm	
4.	80*10*4	
5.	120*10*4 mm	

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

