

NORYL™ GFN3 resin

Polyphenylene Ether + PS

SABIC Innovative Plastics

Message:

NORYL GFN3 is a standard 30 % glass filled material with a HDT/A of 145C according to ISO 75

General Information			
UL YellowCard	E45329-236756		
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.30	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (280°C/10.0 kg)	7.00	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow ¹	0.10 - 0.30	%	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)	130	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	8000	MPa	ISO 527-2/1
Tensile Stress (Break)	100	MPa	ISO 527-2/5
Tensile Strain (Break)	1.5	%	ISO 527-2/5
Flexural Modulus ²	6000	MPa	ISO 178
Flexural Stress	125	MPa	ISO 178
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	70.0	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	25	kJ/m ²	ISO 180/1U
23°C	25	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁵			
0.45 MPa, unannealed, 100 mm span	145	°C	ISO 75-2/Be
1.8 MPa, unannealed, 100 mm span	140	°C	ISO 75-2/Ae
Vicat Softening Temperature			

--	155	°C	ISO 306/A50, ISO 306/B120
--	145	°C	ISO 306/B50
Ball Pressure Test			IEC 60695-10-2
125°C	Pass		IEC 60695-10-2
125°C ⁶	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 80°C	3.0E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 80°C	7.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.28	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	2.90		IEC 60250
60 Hz	2.90		IEC 60250
1 MHz	2.90		IEC 60250
Dissipation Factor			IEC 60250
50 Hz	6.0E-4		IEC 60250
60 Hz	6.0E-4		IEC 60250
1 MHz	1.0E-3		IEC 60250
Comparative Tracking Index	250	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm)	HB		UL 94
Glow Wire Flammability Index (3.20 mm)	850	°C	IEC 60695-2-12
Oxygen Index	26	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	100 - 120	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 - 80.0	°C	
Rear Temperature	250 - 270	°C	
Middle Temperature	270 - 290	°C	
Front Temperature	290 - 310	°C	
Nozzle Temperature	280 - 300	°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
6.	Approximate maximum

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Recommended distributors for this material

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