

**Product Texts**

NORYL™ GFN3 resin is a 30% glass reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This general-purpose injection moldable grade exhibits very low moisture absorption, high strength, hydrolytic stability, Low warpage, low specific gravity, and dimensional stability. NORYL GFN3 carries a UL746C outdoor suitability rating of F2 and is an excellent candidate for a variety of indoor and outdoor applications including construction, electrical components + displays, lawn and garden equipment. \*See NORYL GFN3F resin for FDA food compliant / NSF version.

UL Yellow Card Link [E121562-221162](https://www.ul.com/yellow-card/E121562-221162)

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	7	cm <sup>3</sup> /10min	ISO 1133
Temperature	300	°C	-
Load	5	kg	-
<b>ASTM Data</b>			
Melt Flow Index, MFI	8.6	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	8740	MPa	ISO 527
Stress at break	117	MPa	ISO 527
Strain at break	1.8	%	ISO 527
Flexural modulus	8710	MPa	ISO 178
Flexural strength	183	MPa	ISO 178
Charpy impact strength, +23°C	39	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	47	kJ/m <sup>2</sup>	ISO 179/1eU
Izod impact strength, +23°C, 4mm	31	kJ/m <sup>2</sup>	ISO 180/1U
Izod impact strength, -30°C, 4mm	35	kJ/m <sup>2</sup>	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	12	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	11	kJ/m <sup>2</sup>	ISO 180/1A
<b>ASTM Data</b>			
Tensile Modulus	9150	MPa	ASTM D 638
Tensile Strength at Break	116	MPa	ASTM D 638
Elongation at Break	2	%	ASTM D 638
Flexural Modulus	8000	MPa	ASTM D 790
Rockwell Hardness	L108	-	ASTM D 785
Izod Impact notched, 1/8 in	117	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	124	J/m	ASTM D 256
Temperature	-30	°C	-
Izod Impact unnotched, 1/8 in	588	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	137	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	143	°C	ISO 75-1/-2
Vicat softening temperature, B	143	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	147	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
<b>ASTM Data</b>			
DTUL @ 66 psi	142	°C	ASTM D 648
DTUL @ 264 psi	137	°C	ASTM D 648

Electrical properties	Value	Unit	Test Standard
<b>ASTM Data</b>			
Dielectric Strength, Short Time	21.6	kV/mm	ASTM D 149
Dissipation Factor, 60 Hz	0.0009	-	ASTM D 150

**NORYL™ Resin GFN3 - Americas**  
(PPE+PS)-GF30

Saudi Basic Industries Corporation (SABIC)

Dielectric Constant, 60 Hz **2.93** - ASTM D 150

<b>Other properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Density	<b>1290</b>	kg/m <sup>3</sup>	ASTM D 792

<b>Processing Recommendation Injection Molding</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Pre-drying - Temperature	<b>110 - 120</b>	°C	-
Pre-drying - Time	<b>3 - 4</b>	h	-
Processing humidity	<b>≤0.02</b>	%	-
Melt temperature	<b>300 - 325</b>	°C	-
Mold temperature	<b>80 - 110</b>	°C	-
Zone 1	<b>265 - 315</b>	°C	-
Zone 2	<b>275 - 320</b>	°C	-
Zone 3	<b>290 - 325</b>	°C	-
Screw speed	<b>20 - 100</b>	rpm	-
Back pressure	<b>0.3 - 0.7</b>	MPa	-

**Characteristics**

**Processing**

Injection Molding

**Applications**

Automotive

**Chemical Resistance**

Hydrolytically Stable

**Regional Availability**

North America

**Certifications**

Food contact, Food approval FDA 21 CFR