

**Product Texts**

NORYL™ GFN3F resin is a 30% glass reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This injection moldable grade exhibits very low moisture absorption, high strength, hydrolytic stability, Low warpage, low specific gravity, and dimensional stability. NORYL GFN3F carries a UL746C outdoor suitability rating of F2 along with FDA food contact compliance and NSF 61 listings in several colors. The properties of this material makes it an excellent candidate for water management applications such as water filter and meter components, pump housings / impellers, shower + faucet, and valves.\*See NORYL GFN3 resin for NON FDA / NSF version.

UL Yellow Card Link [E45587-237022](https://www.ul.com/yellow-card/E45587-237022)

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	2	cm <sup>3</sup> /10min	ISO 1133
Temperature	280	°C	-
Load	5	kg	-
<b>ASTM Data</b>			
Melt Flow Index, MFI	3.2	g/10min	ASTM D 1238
Temperature	280	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	8500	MPa	ISO 527
Stress at break	110	MPa	ISO 527
Strain at break	2.5	%	ISO 527
Flexural modulus	6800	MPa	ISO 178
Charpy notched impact strength, +23°C	8	kJ/m <sup>2</sup>	ISO 179/1eA
Izod impact strength, +23°C, 4mm	31	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	130	MPa	ASTM D 638
Elongation at Break	3	%	ASTM D 638
Flexural Modulus	8000	MPa	ASTM D 790
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
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
Vicat Temperature	147	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Water absorption	0.1	%	Sim. to ISO 62
Humidity absorption	0.04	%	Sim. to ISO 62
Density	1290	kg/m <sup>3</sup>	ASTM D 792

**NORYL™ Resin GFN3F - Asia**

(PPE+PS)-GF30

Saudi Basic Industries Corporation (SABIC)

<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

**Certifications**

Food contact, Food approval FDA 21 CFR

**Chemical Resistance**

Hydrolytically Stable

**Regional Availability**

Asia Pacific