

Product Texts

NORYL™ GFN1 resin is a 10% 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 GFN1 carries a UL746C outdoor suitability rating of F1 and is an excellent candidate for a variety of indoor and outdoor applications including construction, electrical components + displays, lawn and garden equipment. *See NORYL GFN1F resin for FDA food compliant / NSF version.

UL Yellow Card Link [E121562-221234](https://www.ul.com/yellow-card/E121562-221234)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	16	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	5	kg	-
ASTM Data			
Melt Flow Index, MFI	16.6	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	4400	MPa	ISO 527
Stress at break	64	MPa	ISO 527
Strain at break	3	%	ISO 527
Flexural modulus	4160	MPa	ISO 178
Flexural strength	122	MPa	ISO 178
Charpy impact strength, +23°C	34	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	33	kJ/m ²	ISO 179/1eU
Izod impact strength, +23°C, 4mm	27	kJ/m ²	ISO 180/1U
Izod impact strength, -30°C, 4mm	25	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	10	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	9	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	4350	MPa	ASTM D 638
Tensile Strength at Break	63	MPa	ASTM D 638
Elongation at Break	3	%	ASTM D 638
Flexural Modulus	3840	MPa	ASTM D 790
Rockwell Hardness	L104	-	ASTM D 785
Izod Impact notched, 1/8 in	118	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	103	J/m	ASTM D 256
Temperature	-30	°C	-
Izod Impact unnotched, 1/8 in	449	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Vicat softening temperature, B	131	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	134	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
ASTM Data			
DTUL @ 66 psi	131	°C	ASTM D 648
DTUL @ 264 psi	122	°C	ASTM D 648

Electrical properties	Value	Unit	Test Standard
ASTM Data			
Dissipation Factor, 1 MHz	0.0014	-	ASTM D 150
Dielectric Constant, 1 MHz	2.9	-	ASTM D 150

NORYL™ Resin GFN1 - Americas

(PPE+PS)-GF10

Saudi Basic Industries Corporation (SABIC)

Other properties	Value	Unit	Test Standard
Density	1130	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	105 - 110	°C	-
Pre-drying - Time	3 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	295 - 315	°C	-
Mold temperature	75 - 105	°C	-
Zone 1	260 - 305	°C	-
Zone 2	270 - 310	°C	-
Zone 3	280 - 315	°C	-
Screw speed	20 - 100	rpm	-
Back pressure	0.3 - 0.7	MPa	-

Characteristics**Processing**

Injection Molding

Certifications

Food contact, Food approval FDA 21 CFR

Chemical Resistance

Hydrolytically Stable

Regional Availability

North America