

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 [E45329-236754](https://www.ulprospector.com/usa/Products/Plastics/236754)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	8	cm ³ /10min	ISO 1133
Temperature	280	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	4000	MPa	ISO 527
Yield stress	50	MPa	ISO 527
Yield strain	3	%	ISO 527
Stress at break	45	MPa	ISO 527
Strain at break	4	%	ISO 527
Flexural modulus	3500	MPa	ISO 178
Charpy impact strength, +23°C	25	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	25	kJ/m ²	ISO 179/1eU
Izod impact strength, +23°C, 4mm	20	kJ/m ²	ISO 180/1U
Izod impact strength, -30°C, 4mm	20	kJ/m ²	ISO 180/1U
Ball indentation hardness	100	MPa	ISO 2039-1

Thermal properties	Value	Unit	Test Standard
ISO Data			
Vicat softening temperature, A	135	°C	ISO 306
Vicat softening temperature, B	125	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	130	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Thermal Conductivity	0.24	W/(m K)	DIN 52616
Glow Wire Flammability Index (GWFI)	750	°C	IEC 60695-2-12
GWFI - thickness tested (1)	3.2	mm	-

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	2.8	-	IEC 62631-2-1
Dissipation factor, 1MHz	10	E-4	IEC 62631-2-1
Volume resistivity	1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2

Other properties	Value	Unit	Test Standard
Water absorption	0.2	%	Sim. to ISO 62
Humidity absorption	0.06	%	Sim. to ISO 62
Density	1170	kg/m ³	ISO 1183

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	100 - 120	°C	-
Pre-drying - Time	2 - 3	h	-
Melt temperature	280 - 300	°C	-
Mold temperature	80 - 120	°C	-
Feed temperature	60 - 80	°C	-

NORYL™ Resin GFN1 - Europe

(PPE+PS)-GF10

Saudi Basic Industries Corporation (SABIC)

Zone 1	240 - 260	°C	-
Zone 2	260 - 280	°C	-
Zone 3	280 - 300	°C	-

Characteristics**Processing**

Injection Molding

Certifications

Food contact, Food approval FDA 21 CFR

Chemical Resistance

Hydrolytically Stable

Regional Availability

Europe