

**Product Texts**

NORYL™ GFN20 resin is a 20% 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 GFN20 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 GFN20F resin for FDA food compliant / NSF version.

UL Yellow Card Link [E45329-100092385](https://www.ul.com/yellow-card/E45329-100092385)

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	15	cm <sup>3</sup> /10min	ISO 1133
Temperature	280	°C	-
Load	10	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	6000	MPa	ISO 527
Yield stress	80	MPa	ISO 527
Yield strain	2.5	%	ISO 527
Stress at break	80	MPa	ISO 527
Strain at break	2.5	%	ISO 527
Flexural modulus	4500	MPa	ISO 178
Charpy impact strength, +23°C	25	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	25	kJ/m <sup>2</sup>	ISO 179/1eU
Izod impact strength, +23°C, 4mm	23	kJ/m <sup>2</sup>	ISO 180/1U
Izod impact strength, -30°C, 4mm	23	kJ/m <sup>2</sup>	ISO 180/1U
Ball indentation hardness	100	MPa	ISO 2039-1

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Vicat softening temperature, A	145	°C	ISO 306
Vicat softening temperature, B	135	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	140	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Thermal Conductivity	0.26	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
<b>ISO Data</b>			
Relative permittivity, 1MHz	2.9	-	IEC 62631-2-1
Dissipation factor, 1MHz	30	E-4	IEC 62631-2-1
Volume resistivity	1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2
Comparative tracking index	250	-	IEC 60112

Other properties	Value	Unit	Test Standard
Water absorption	0.2	%	Sim. to ISO 62
Humidity absorption	0.06	%	Sim. to ISO 62
Density	1250	kg/m <sup>3</sup>	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	-

**NORYL™ Resin GFN20 - Europe**

(PPE+PS)-GF20

Saudi Basic Industries Corporation (SABIC)

Feed temperature	<b>60 - 80</b>	°C	-
Zone 1	<b>240 - 260</b>	°C	-
Zone 2	<b>260 - 280</b>	°C	-
Zone 3	<b>280 - 300</b>	°C	-

**Characteristics****Processing**

Injection Molding

**Chemical Resistance**

Hydrolytically Stable

**Certifications**

Food contact, Food approval FDA 21 CFR

**Applications**

Automotive

**Regional Availability**

Europe