

Product Texts

NORYL™ GFN20F resin is a 20% 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 GFN20F carries a UL746C outdoor suitability rating of F1 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 GFN20 resin for NON FDA / NSF version.

UL Yellow Card Link [E45587-237020](https://www.ul.com/yellow-card/E45587-237020)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	2	cm³/10min	ISO 1133
Temperature	280	°C	-
Load	5	kg	-
ASTM Data			
Melt Flow Index, MFI	11.7	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	6000	MPa	ISO 527
Yield stress	90	MPa	ISO 527
Strain at break	3	%	ISO 527
Flexural modulus	5400	MPa	ISO 178
Charpy notched impact strength, +23°C	8	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C, 4mm	30	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	10	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	9	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	6500	MPa	ASTM D 638
Tensile Strength at Yield	100	MPa	ASTM D 638
Elongation at Break	3	%	ASTM D 638
Izod Impact notched, 1/8 in	88	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	550	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	135	°C	ISO 75-1/-2
Vicat softening temperature, B	140	°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	-
ASTM Data			
DTUL @ 264 psi	137	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Humidity absorption	0.04	%	Sim. to ISO 62
Density	1230	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	110 - 120	°C	-
Pre-drying - Time	3 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	300 - 325	°C	-
Mold temperature	80 - 110	°C	-
Zone 1	265 - 315	°C	-
Zone 2	275 - 320	°C	-

NORYL™ Resin GFN20F - Asia

(PPE+PS)-GF20

Saudi Basic Industries Corporation (SABIC)

Zone 3	290 - 325	°C	-
Screw speed	20 - 100	rpm	-
Back pressure	0.3 - 0.7	MPa	-

Characteristics**Processing**

Injection Molding

Chemical Resistance

Hydrolytically Stable

Certifications

Food contact, Food approval FDA 21 CFR

Regional Availability

Asia Pacific