

Product Texts

NORYL™ GFN1720 resin is a 20% glass reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This injection moldable grade was developed for high heat applications and exhibits a good balance of heat resistance, strength, and electrical performance. NORYL GFN1720 resin is an excellent candidate for applications requiring electrically insulating properties, such as ignition coils and bobbins.

UL Yellow Card Link [E45329-236755](https://www.ul.com/yellowcard/E45329-236755)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	11	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	10	kg	-
ASTM Data			
Melt Flow Index, MFI	4.5	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
Yield strain	2	%	ISO 527
Stress at break	90	MPa	ISO 527
Strain at break	2	%	ISO 527
Flexural modulus	4500	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	25	kJ/m ²	ISO 180/1U
Izod impact strength, -30°C, 4mm	25	kJ/m ²	ISO 180/1U
Ball indentation hardness	100	MPa	ISO 2039-1
ASTM Data			
Tensile Modulus	5500	MPa	ASTM D 638
Tensile Strength at Yield	90	MPa	ASTM D 638
Tensile Strength at Break	90	MPa	ASTM D 638
Elongation at Yield	2.5	%	ASTM D 638
Elongation at Break	3	%	ASTM D 638
Flexural Modulus	4800	MPa	ASTM D 790
Izod Impact notched, 1/8 in	60	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	50	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Vicat softening temperature, A	180	°C	ISO 306
Vicat softening temperature, B	170	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	180	°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)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	3.2	mm	-
ASTM Data			
DTUL @ 264 psi	171	°C	ASTM D 648
Vicat Temperature	181	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	2.6	-	IEC 62631-2-1

NORYL™ Resin GFN1720 - Europe

(PPE+PS)-GF20

Saudi Basic Industries Corporation (SABIC)

Dissipation factor, 1MHz	20	E-4	IEC 62631-2-1
Volume resistivity	1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2
Electric strength	30	kV/mm	IEC 60243-1
Comparative tracking index	200	-	IEC 60112

Other properties	Value	Unit	Test Standard
Water absorption	0.15	%	Sim. to ISO 62
Humidity absorption	0.06	%	Sim. to ISO 62
Density	1240	kg/m ³	ISO 1183
Density	1240	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	110 - 120	°C	-
Pre-drying - Time	2 - 4	h	-
Melt temperature	290 - 330	°C	-
Mold temperature	80 - 120	°C	-
Feed temperature	60 - 80	°C	-
Zone 1	270 - 290	°C	-
Zone 2	290 - 310	°C	-
Zone 3	310 - 330	°C	-

Characteristics**Processing**

Injection Molding

Regional Availability

Europe