

Product Texts

NORYL™ SE1GFN2 resin is a 20% glass reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This injection moldable grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of 5VA at 2mm and V1 at 1.5mm along with UL746C Outdoor Suitability rating of F1 and RTI of 110C. NORYL SE1GFN2 exhibits high heat resistance, good dielectric strength, dimensional stability, hydrolytic stability, and very low moisture absorption. This material is an excellent candidate for a variety of applications such as solar frames, unattended power supply (UPS) inverter/charger, indoor and outdoor electrical enclosures / housings / connectors, and wall plates / sockets / switches.

UL Yellow Card Link [F121562-624509](https://www.ul.com/yellow-card/F121562-624509)

Mechanical properties	Value	Unit	Test Standard
ASTM Data			
Tensile Strength at Break	106	MPa	ASTM D 638
Elongation at Break	5	%	ASTM D 638
Rockwell Hardness	L106	-	ASTM D 785
Izod Impact notched, 1/8 in	106	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	96	J/m	ASTM D 256
Temperature	-40	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Burning behav. at 1.5 mm nom. thickn.	V-1	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	6.0	mm	-
Burning behav. 5V at thickness h	5VA	class	IEC 60695-11-20
Thickness tested	2.0	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (GWIT)	775	°C	IEC 60695-2-13
GWIT - thickness tested (1)	1	mm	-

Electrical properties	Value	Unit	Test Standard
ASTM Data			
Dielectric Strength, Short Time	23.6	kV/mm	ASTM D 149
Dissipation Factor, 60 Hz	0.0016	-	ASTM D 150
Dielectric Constant, 60 Hz	2.98	-	ASTM D 150

Other properties	Value	Unit	Test Standard
Density	1230	kg/m ³	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	-
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

NORYL™ Resin SE1GFN2 - Americas

(PPE+PS)-GF20

Saudi Basic Industries Corporation (SABIC)

Additives

Flame retarding agent

Applications

Automotive

Special Characteristics

Flame retardant

Regional Availability

North America