NORYL GTX™ Resin GTX850

(PPE+PA*)-GF50 — Saudi Basic Industries Corporation (SABIC)

Product Texts

NORYL GTX850 resin is a 50% glass reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). This injection moldable grade has high stiffness (flexural modulus 15.2 GPa), excellent chemical resistance, and high heat resistance. Target application of GTX850 is a wide variety of automotive under-the-hood, water management and consumer electronics structural applications.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	**0.0035**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.004**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**17000**	MPa	ISO 527
Stress at break	**226**	MPa	ISO 527
Strain at break	**3.3**	%	ISO 527
Flexural modulus, 23°C	**14800**	MPa	ISO 178
Flexural strength	**365**	MPa	ISO 178
Izod notched impact strength, +23°C	**12.5**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**17500**	MPa	ASTM D 638
Tensile Strength at Break	**232**	MPa	ASTM D 638
Elongation at Break	**3.6**	%	ASTM D 638
Flexural Modulus	**15200**	MPa	ASTM D 790
Flexural Strength	**370**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**128**	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	**1200**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**250**	°C	ISO 75-1/-2
ASTM Data			
DTUL @ 264 psi	**251**	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Water Absorption, 24hr	**0.16**	%	ASTM D 570
Density	**1570**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**95 - 105**	°C	-
Pre-drying - Time	**3 - 4**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**280 - 305**	°C	-
Mold temperature	**75 - 120**	°C	-
Zone 1	**265 - 305**	°C	-
Zone 2	**270 - 305**	°C	-
Zone 3	**275 - 305**	°C	-
Nozzle temperature	**280 - 305**	°C	-
Screw speed	**20 - 100**	rpm	-
Back pressure	**0.3 - 1.4**	MPa	-

Characteristics

Processing

Injection Molding

Applications

Automotive, Electrical and Electronical

Special Characteristics

Heat stabilized or stable to heat

Regional Availability

North America, Europe, Asia Pacific, South and Central America

Chemical Resistance

General Chemical Resistance