

Product Texts

NORYL GTX™ 840 resin is a 40% glass reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). This injection moldable grade has high stiffness (flexural modulus 11860 MPa), excellent chemical resistance, and high heat resistance. NORYL GTX GTX840 resin is an excellent candidate for a wide variety of applications including automotive under-the-hood and water management.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	10	cm ³ /10min	ISO 1133
Temperature	220	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	13900	MPa	ISO 527
Stress at break	198	MPa	ISO 527
Strain at break	2	%	ISO 527
Flexural modulus	12300	MPa	ISO 178
Charpy notched impact strength, +23°C	11	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	11	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	11	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	13520	MPa	ASTM D 638
Tensile Strength at Break	178	MPa	ASTM D 638
Elongation at Break	2	%	ASTM D 638
Flexural Modulus	11860	MPa	ASTM D 790
Rockwell Hardness	R 108	-	ASTM D 785
Izod Impact notched, 1/8 in	94	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	90	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	244	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	258	°C	ISO 75-1/-2
Vicat softening temperature, B	246	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	246	°C	ISO 306

Other properties	Value	Unit	Test Standard
Humidity absorption	0.1	%	Sim. to ISO 62
Density	1450	kg/m ³	ISO 1183
Density	1450	kg/m ³	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	≤0.07	%	-
Melt temperature	295 - 315	°C	-
Mold temperature	75 - 120	°C	-
Zone 1	275 - 315	°C	-
Zone 2	280 - 315	°C	-
Zone 3	290 - 315	°C	-
Screw speed	20 - 100	rpm	-
Back pressure	0.3 - 1.4	MPa	-

Characteristics

NORYL GTX™ Resin GTX840 - Asia

(PPE+PA*)-GF40

Saudi Basic Industries Corporation (SABIC)

Processing

Injection Molding

Regional Availability

Asia Pacific

Applications

Automotive