NORYL GTX™ Resin GTX964W

(PPE+PA*) Saudi Basic Industries Corporation (SABIC)

Product Texts

NORYL GTX™ 964W resin is a non-reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA) that exhibits very high impact resistance and high flow. This injection moldable grade was designed for large parts, such as automotive body panels, thin wall applications, and structural members for energy absorption.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**7**	cm³/10min	ISO 1133
Temperature	**280**	°C	-
Load	**2.16**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Yield stress	**50**	MPa	ISO 527
Yield strain	**4**	%	ISO 527
Stress at break	**45**	MPa	ISO 527
Strain at break	**50**	%	ISO 527
Flexural modulus	**1800**	MPa	ISO 178
Charpy notched impact strength, +23°C	**45**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**20**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	**50**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	**20**	kJ/m²	ISO 180/1A
Izod notched impact strength, +23°C	**50**	kJ/m²	ISO 180/1A
Izod notched impact strength	**20**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
ASTM Data			
Tensile Strength at Yield	**44**	MPa	ASTM D 638
Elongation at Break	**56**	%	ASTM D 638
Flexural Modulus	**1830**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**528**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 0.45 MPa	**175**	°C	ISO 75-1/-2
Vicat softening temperature, A	**240**	°C	ISO 306
Vicat softening temperature, B	**175**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**180**	°C	ISO 306
ASTM Data			
DTUL @ 66 psi	**185**	°C	ASTM D 648
Thermal Conductivity, solid state	**0.0332**	W/(m K)	ASTM C 177

Other properties	Value	Unit	Test Standard
Water Absorption, Equilibrium	**1.19**	%	ASTM D 570
Density	**1080**	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	**≤0.07**	%	-
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

Processing
Injection Molding

Applications
Automotive

Special Characteristics
High impact or impact modified

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