NORYL GTX™ Resin GTX9500

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

Product Texts

NORYL GTX9500 resin is a non-reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). This resin exhibits a good balance of high melt flow and low water absorption. Added features include excellent chemical resistance, high heat resistance, and dimensional stability. NORYL GTX9500 is an excellent candidate for various applications in the automotive and electronics industries.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Melt Flow Index, MFI	**28**	g/10min	ASTM D 1238
Temperature	**280**	°C	-
Load	**2.16**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2350**	MPa	ISO 527
Yield stress	**60**	MPa	ISO 527
Yield strain	**5**	%	ISO 527
Stress at break	**56**	MPa	ISO 527
Strain at break	**9**	%	ISO 527
Flexural modulus, 23°C	**2310**	MPa	ISO 178
Charpy impact strength, +23°C	**51**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**7**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**6**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**64**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C	**5**	kJ/m²	ISO 180/1A
Izod notched impact strength	**5**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
ASTM Data			
Tensile Modulus	**2142**	MPa	ASTM D 638
Tensile Strength at Yield	**61**	MPa	ASTM D 638
Tensile Strength at Break	**57**	MPa	ASTM D 638
Elongation at Yield	**5**	%	ASTM D 638
Elongation at Break	**6**	%	ASTM D 638
Flexural Modulus	**2357**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**41**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**28**	J/m	ASTM D 256
Temperature	**-30**	°C	-
Izod Impact unnotched, 1/8 in	**800**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**92**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**136**	°C	ISO 75-1/-2
Vicat softening temperature, B	**151**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**86.2**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**102**	E-6/K	ISO 11359-1/-2
ASTM Data			
Coefficient of Thermal Expansion, MD	**71.7**	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	**75.5**	E-6/K	ASTM D 696
DTUL @ 66 psi	**123**	°C	ASTM D 648
DTUL @ 264 psi	**65**	°C	ASTM D 648
Vicat Temperature	**152**	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ASTM Data			
Dielectric Strength, Short Time	**25.9**	kV/mm	ASTM D 149
Dissipation Factor, 1 MHz	**0.01**	-	ASTM D 150

Other properties	Value	Unit	Test Standard
Humidity absorption	**0.17**	%	Sim. to ISO 62
Density	**1100**	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	**270 - 295**	°C	-
Mold temperature	**65 - 95**	°C	-
Zone 1	**255 - 295**	°C	-
Zone 2	**260 - 295**	°C	-
Zone 3	**265 - 295**	°C	-
Nozzle temperature	**270 - 295**	°C	-
Screw speed	**20 - 100**	rpm	-
Back pressure	**0.3 - 0.4**	MPa	-

Characteristics

Processing
Injection Molding

Chemical Resistance
General Chemical Resistance, Hydrolytically Stable

Special Characteristics
Heat stabilized or stable to heat

Applications
Automotive, Electrical and Electronical

Features
Creep Resistance, Low Warpage

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