NORYL GTX™ Resin GTX914 - Americas

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

Product Texts

NORYL GTX™ 914 resin is a non-reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). This injection moldable grade exhibits an ideal combination of impact performance and dimensional stability at elevated temperatures along with excellent chemical resistance and processability. NORYL GTX914 resin may be an excellent candidate for various automotive applications such as tank flaps, exterior trim, and wheel covers.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**11**	cm³/10min	ISO 1133
Temperature	**280**	°C	-
Load	**5**	kg	-
ASTM Data			
Melt Flow Index, MFI	**12**	g/10min	ASTM D 1238
Temperature	**280**	°C	-
Load	**5**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2100**	MPa	ISO 527
Yield stress	**55**	MPa	ISO 527
Yield strain	**7.5**	%	ISO 527
Stress at break	**55**	MPa	ISO 527
Strain at break	**50**	%	ISO 527
Flexural modulus	**2000**	MPa	ISO 178
Charpy notched impact strength, +23°C	**30**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**15**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	**30**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	**15**	kJ/m²	ISO 180/1A
Ball indentation hardness	**90**	MPa	ISO 2039-1
ASTM Data			
Tensile Modulus	**1950**	MPa	ASTM D 638
Tensile Strength at Yield	**55**	MPa	ASTM D 638
Tensile Strength at Break	**55**	MPa	ASTM D 638
Elongation at Yield	**15**	%	ASTM D 638
Elongation at Break	**100**	%	ASTM D 638
Flexural Modulus	**1900**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**280**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**120**	J/m	ASTM D 256
Temperature	**-30**	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Vicat softening temperature, A	**245**	°C	ISO 306
Vicat softening temperature, B	**190**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**195**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**90**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**90**	E-6/K	ISO 11359-1/-2
Thermal Conductivity	**0.23**	W/(m K)	DIN 52616
ASTM Data			
DTUL @ 66 psi	**180**	°C	ASTM D 648
Vicat Temperature	**195**	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	**2.7**	-	IEC 62631-2-1
Dissipation factor, 1MHz	**240**	E-4	IEC 62631-2-1
Comparative tracking index	**600**	-	IEC 60112

Other properties	Value	Unit	Test Standard
Water absorption	**3.5**	%	Sim. to ISO 62
Humidity absorption	**1.2**	%	Sim. to ISO 62
Density	**1090**	kg/m³	ISO 1183
Density	**1100**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**100 - 120**	°C	-
Pre-drying - Time	**2 - 3**	h	-
Processing humidity	**≤0.07**	%	-
Melt temperature	**280 - 310**	°C	-
Mold temperature	**80 - 120**	°C	-
Feed temperature	**60 - 80**	°C	-
Zone 1	**260 - 280**	°C	-
Zone 2	**270 - 290**	°C	-
Zone 3	**280 - 300**	°C	-

Characteristics

Processing
Injection Molding

Applications
Automotive

Regional Availability
North America