NORYL GTX™ Resin GTX974 - Asia

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

Product Texts

NORYL GTX™ 974 resin is a conductive, non-reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). This injection moldable grade is optimized to allow for in- or on-line primer-less electrostatic painting. NORYL GTX974 resin exhibits high impact resistance and is an excellent candidate for automotive painted applications such as body panels and fenders.

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

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**2000**	MPa	ISO 527
Yield stress	**50**	MPa	ISO 527
Yield strain	**4**	%	ISO 527
Stress at break	**45**	MPa	ISO 527
Strain at break	**30**	%	ISO 527
Flexural modulus	**1900**	MPa	ISO 178
Charpy notched impact strength, +23°C	**18**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**10**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	**17**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	**10**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**2050**	MPa	ASTM D 638
Tensile Strength at Yield	**55**	MPa	ASTM D 638
Tensile Strength at Break	**50**	MPa	ASTM D 638
Elongation at Yield	**5**	%	ASTM D 638
Elongation at Break	**50**	%	ASTM D 638
Flexural Modulus	**2050**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**180**	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	**230**	°C	ISO 306
Vicat softening temperature, B	**175**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**180**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**100**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**90**	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	**HB**	class	IEC 60695-11-10
Thickness tested	**1.5**	mm	-
ASTM Data			
DTUL @ 66 psi	**180**	°C	ASTM D 648
Vicat Temperature	**180**	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Water absorption	**4.2**	%	Sim. to ISO 62
Humidity absorption	**1.2**	%	Sim. to ISO 62
Density	**1080**	kg/m³	ISO 1183
Density	**1080**	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	**290 - 320**	°C	-
Mold temperature	**100 - 120**	°C	-
Feed temperature	**60 - 80**	°C	-
Zone 1	**260 - 280**	°C	-
Zone 2	**280 - 300**	°C	-
Zone 3	**290 - 320**	°C	-

Characteristics

Processing
Injection Molding

Applications
Automotive

Regional Availability
Asia Pacific