NORYL GTX™ Resin GTX987 - Asia

(PPE+PA*)-MF — Saudi Basic Industries Corporation (SABIC)

Product Texts

NORYL GTX™ 987 resin is a conductive, high performance non-reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). This injection moldable grade is optimized for primer-less electrostatic painting. NORYL GTX987 resin exhibits a low coefficient of thermal expansion (CTE) of ~7. This material is an excellent candidate for automotive applications such as body panels, tank flaps, and tailgates.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**7**	cm³/10min	ISO 1133
Temperature	**280**	°C	-
Load	**5**	kg	-
Density of melt	**1080**	kg/m³	-
Thermal conductivity of melt	**0.21**	W/(m K)	-
Spec. heat capacity of melt	**1900**	J/(kg K)	-
Ejection temperature	**223**	°C	-
ASTM Data			
Melt Flow Index, MFI	**8.5**	g/10min	ASTM D 1238
Temperature	**280**	°C	-
Load	**5**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**3000**	MPa	ISO 527
Yield stress	**62**	MPa	ISO 527
Yield strain	**5**	%	ISO 527
Stress at break	**62**	MPa	ISO 527
Strain at break	**20**	%	ISO 527
Flexural modulus	**2800**	MPa	ISO 178
Charpy notched impact strength, +23°C	**11**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	**15**	kJ/m²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	**8**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**3250**	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	**5**	%	ASTM D 638
Elongation at Break	**15**	%	ASTM D 638
Flexural Modulus	**2700**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**90**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**70**	J/m	ASTM D 256
Temperature	**-30**	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 0.45 MPa	**190**	°C	ISO 75-1/-2
Vicat softening temperature, B	**198**	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	**200**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**70**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**75**	E-6/K	ISO 11359-1/-2
ASTM Data			
DTUL @ 66 psi	**185**	°C	ASTM D 648
Vicat Temperature	**192**	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Water absorption	**3**	%	Sim. to ISO 62
Humidity absorption	**0.9**	%	Sim. to ISO 62
Density	**1250**	kg/m³	ISO 1183
Density	**1250**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**100 - 110**	°C	-
Pre-drying - Time	**2 - 3**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**300 - 320**	°C	-
Mold temperature	**100 - 120**	°C	-
Feed temperature	**80 - 100**	°C	-
Zone 1	**260 - 280**	°C	-
Zone 2	**280 - 300**	°C	-
Zone 3	**300 - 320**	°C	-

Characteristics

Processing
Injection Molding

Regional Availability
Asia Pacific