

NORYL GTX™ GTX979 resin

Polyphenylene Ether + PS + Nylon

SABIC Innovative Plastics Europe

Message:

NORYL GTX979 is a conductive, high heat material. It is especially designed for in- and on-line painted bodypanels and fenders in particular, with conductivity for electro-static painting in an unique way.

General Information			
UL YellowCard	E45329-269627		
Features	Conductivity		
	Sprayable		
	Heat resistance, high		
Uses	Application in Automobile Field		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.08	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (280°C/5.0 kg)	15	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (280°C/5.0 kg)	11.0	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal method
Flow: 3.20mm	1.2 - 1.6	%	Internal method
Transverse flow: 3.20mm	1.2 - 1.6	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	4.2	%	ISO 62
Equilibrium, 23°C, 50% RH	1.2	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2000	MPa	ASTM D638
--	2100	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	55.0	MPa	ASTM D638
Yield	55.0	MPa	ISO 527-2/50
Fracture ³	50.0	MPa	ASTM D638
Fracture	50.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	5.0	%	ASTM D638
Yield	4.0	%	ISO 527-2/50
Fracture ⁵	60	%	ASTM D638
Fracture	30	%	ISO 527-2/50

Flexural Modulus			
50.0mm span ⁶	2050	MPa	ASTM D790
-- ⁷	2150	MPa	ISO 178
Flexural Stress			
--	80.0	MPa	ISO 178
Yield, 50.0mm span ⁸	80.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹			ISO 179/1eA
-30°C	12	kJ/m ²	ISO 179/1eA
23°C	20	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	150	J/m	ASTM D256
23°C	220	J/m	ASTM D256
-30°C ¹⁰	7.0	kJ/m ²	ISO 180/1A
23°C ¹¹	17	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ¹²			ISO 180/1U
-30°C	No Break		ISO 180/1U
23°C	No Break		ISO 180/1U
Instrumented Dart Impact (23°C, Total Energy)	50.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	185	°C	ASTM D648
0.45 MPa, unannealed, 100 mm span ¹³	178	°C	ISO 75-2/Be
Vicat Softening Temperature			
--	180	°C	ASTM D1525, ISO 306/B50 ¹⁴
--	182	°C	ISO 306/B120
Linear thermal expansion coefficient			
Flow: -40 to 40°C	9.5E-5	cm/cm/°C	ASTM E831
Flow: 23 to 80°C	9.6E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	1.0E-4	cm/cm/°C	ASTM E831
Lateral: 23 to 80°C	9.6E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+3 - 1.0E+4	ohms · cm	Internal method
Flammability	Nominal Value	Unit	Test Method
Glow Wire Flammability Index (3.20 mm)	650	°C	IEC 60695-2-12
Injection	Nominal Value	Unit	
Drying Temperature	100 - 120	°C	
Drying Time	2.0 - 3.0	hr	
Suggested Max Moisture	0.070	%	
Hopper Temperature	60.0 - 80.0	°C	
Rear Temperature	260 - 280	°C	

Middle Temperature	280 - 300	°C
Front Temperature	290 - 320	°C
Nozzle Temperature	280 - 310	°C
Processing (Melt) Temp	290 - 320	°C
Mold Temperature	80.0 - 120	°C

Injection instructions

Minimum Moisture Content: 0.02 %

NOTE

1.	50 mm/min
2.	Type 1, 50mm/min
3.	Type 1, 50mm/min
4.	Type 1, 50mm/min
5.	Type 1, 50mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*4 sp=62mm
10.	80*10*4
11.	80*10*4
12.	80*10*4
13.	120*10*4 mm
14.	标准 B (120°C/h), 载荷2 (50N)

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