

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			
Features	Conductivity		
	Sprayable		
	Heat resistance, high		
Uses	Application in Automobile Field		
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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