

NORYL GTX™ GTX673 resin

Polyphenylene Ether + PS + Nylon

SABIC Innovative Plastics

Message:

Conductive NORYL GTX resin designed for profile extrusion. This grade can be electrostatic or powder coat painted without the need for a primer. In addition, its high heat capability allows it to be painted on the same line as metal.

General Information			
Features	Sprayable		
	Heat resistance, high		
Processing Method	Profile extrusion molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.10	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/5.0 kg)	7.8	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/5.0 kg)	7.00	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	1.3 - 1.5	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	4.0	%	ISO 62
Equilibrium, 23°C, 50% RH	0.40	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2420	MPa	ASTM D638
--	2670	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	65.0	MPa	ASTM D638
Yield	66.0	MPa	ISO 527-2/50
Fracture ³	63.0	MPa	ASTM D638
Fracture	64.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	3.8	%	ASTM D638
Yield	4.0	%	ISO 527-2/50
Fracture ⁵	6.1	%	ASTM D638
Fracture	7.1	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁶	2520	MPa	ASTM D790
-- ⁷	2470	MPa	ISO 178
Flexural Stress			
--	103	MPa	ISO 178
Yield, 50.0mm span ⁸	100	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	12	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	58	J/m	ASTM D256
23°C	110	J/m	ASTM D256
-30°C ¹⁰	6.0	kJ/m ²	ISO 180/1A
23°C ¹¹	11	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	5.00	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	187	°C	ASTM D648
0.45 MPa, unannealed, 64.0mm span ¹²	184	°C	ISO 75-2/Bf
Vicat Softening Temperature			
--	197	°C	ASTM D1525, ISO 306/B50 ¹³
--	198	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			
Flow: -40 to 40°C	7.6E-5	cm/cm/°C	ASTM E831
Flow: 23 to 60°C	8.1E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	7.8E-5	cm/cm/°C	ASTM E831
Lateral: 23 to 60°C	8.6E-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
Extrusion	Nominal Value	Unit	
Drying Temperature	105 - 110	°C	
Drying Time	8.0	hr	
Suggested Max Moisture	0.030	%	
Cylinder Zone 1 Temp.	245 - 260	°C	
Cylinder Zone 2 Temp.	245 - 260	°C	
Cylinder Zone 3 Temp.	245 - 260	°C	
Cylinder Zone 4 Temp.	245 - 260	°C	
Adapter Temperature	245 - 260	°C	
Melt Temperature	245 - 260	°C	
Die Temperature	245 - 260	°C	
Calibration Temp, First	35.0 - 75.0	°C	
Extrusion instructions			
Drying Time (Cumulative): 24 hrsWater Bath Temperature: 35 - 50 °C			
NOTE			
1.	5.0 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 mm
13.	标准 B (120°C/h), 载荷2 (50N)

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