NORYL GTX™ GTX989 resin

Polyphenylene Ether + PS + Nylon

SABIC Innovative Plastics Europe

Message:

NORYL GTX989 is a conductive and high heat material, especially designed for in- and on-line painted bodypanels and fenders in particular. This material combines impact performance with conductivity for electro-static painting in an unique way.

General Information			
Features	Conductivity Impact resistance, good Sprayable Heat resistance, high		
Uses	Application in Automobile Field Automotive exterior parts		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.08	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (280°C/5.0 kg)	16	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (280°C/5.0 kg)	19.0	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	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]	2350	MPa	ASTM D638
--	2300	MPa	ISO 527-2/1
Tensile Strength			
Yield [2]	65.0	MPa	ASTM D638
Yield	60.0	MPa	ISO 527-2/50
Fracture [3]	60.0	MPa	ASTM D638
Fracture	55.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield [4]	5.0	%	ASTM D638
Yield	5.0	%	ISO 527-2/50
Fracture [5]	45	%	ASTM D638
Fracture	40	%	ISO 527-2/50
Flexural Modulus			

50.0mm span [6]	2450	MPa	ASTM D790
-- [7]	2300	MPa	ISO 178
Flexural Stress			
--	90.0	MPa	ISO 178
Yield, 50.0mm span [8]	95.0	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [9]			ISO 179/1eA
-30°C	15	kJ/m²	ISO 179/1eA
23°C	22	kJ/m²	ISO 179/1eA
Notched Izod Impact			
-30°C	180	J/m	ASTM D256
23°C	240	J/m	ASTM D256
-30°C [10]	15	kJ/m²	ISO 180/1A
23°C [11]	22	kJ/m²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	60.0	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	190	°C	ASTM D648
0.45 MPa, unannealed, 100 mm span [12]	190	°C	ISO 75-2/Be
Vicat Softening Temperature			
--	195	°C	ASTM D1525, ISO 306/B50 10 [13]
--	200	°C	ISO 306/B120
Linear thermal expansion coefficient			
Flow: -40 to 60°C	8.5E-5	cm/cm/°C	ASTM E831
Flow: 23 to 60°C	9.0E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 60°C	8.5E-5	cm/cm/°C	ASTM E831
Lateral: 23 to 60°C	9.0E-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
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: .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.	120*10*4 mm
13.	标准 B (120°C/h), 载荷2 (50N)

Recommended distributors for this material

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