

NORYL GTX™ GTX918WR resin

Polyphenylene Ether + PS + Nylon

SABIC Innovative Plastics Asia Pacific

Message:

High flow PPE+PA for under-the-hood and electrical applications. With mold release

General Information			
UL YellowCard	E207780-102297328		
Additive	demoulding		
Features	High liquidity		
Uses	Parts under the hood of a car Automotive Electronics		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.09	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (280°C/5.0 kg)	45	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (280°C/1.2 kg)	5.30	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal method
Flow: 3.20mm	1.3 - 1.6	%	Internal method
Transverse flow: 3.20mm	1.0 - 1.3	%	Internal method
Water Absorption (Saturation, 23°C)	4.2	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	818	MPa	ASTM D638
Tensile Strength			
Yield ²	62.1	MPa	ASTM D638
Yield	60.0	MPa	ISO 527-2/50
Fracture ³	57.9	MPa	ASTM D638
Fracture	55.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	11	%	ASTM D638
Yield	4.5	%	ISO 527-2/50
Fracture ⁵	53	%	ASTM D638
Fracture	30	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁶	2360	MPa	ASTM D790
-- ⁷	2200	MPa	ISO 178
Flexural Stress			
--	85.0	MPa	ISO 178

Yield, 50.0mm span ⁸	98.6	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹			ISO 179/1eA
-30°C	10	kJ/m ²	ISO 179/1eA
23°C	20	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
23°C	200	J/m	ASTM D256
-30°C ¹⁰	10	kJ/m ²	ISO 180/1A
23°C ¹¹	20	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Energy at Peak Load)	40.7	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	189	°C	ASTM D648
0.45 MPa, unannealed, 100 mm span ¹²	185	°C	ISO 75-2/Be
1.8 MPa, unannealed, 3.20mm	149	°C	ASTM D648
Vicat Softening Temperature			
--	242	°C	ASTM D1525 ¹³
--	245	°C	ISO 306/A50
--	190	°C	ISO 306/B50
--	195	°C	ISO 306/B120
Linear thermal expansion coefficient			
Flow: -40 to 40°C	6.5E-5	cm/cm/°C	ASTM E831
Flow: 23 to 60°C	8.0E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	6.8E-5	cm/cm/°C	ASTM E831
Lateral: 23 to 60°C	8.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.25	W/m/K	ASTM C177
Injection	Nominal Value	Unit	
Drying Temperature	93.3 - 107	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	8.0	hr	
Suggested Max Moisture	0.070	%	
Suggested Shot Size	30 - 50	%	
Rear Temperature	254 - 293	°C	
Middle Temperature	260 - 293	°C	
Front Temperature	266 - 293	°C	
Nozzle Temperature	271 - 293	°C	
Processing (Melt) Temp	271 - 293	°C	
Mold Temperature	65.6 - 93.3	°C	
Back Pressure	0.345 - 1.38	MPa	
Screw Speed	20 - 100	rpm	
Vent Depth	0.013 - 0.038	mm	

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.	120*10*4 mm
13.	标准 B (120°C/h), 载荷2 (50N)

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