

NORYL™ WCV072 resin

Polyphenylene Ether + PS + PP

SABIC Innovative Plastics

Message:

Flexible, halogen free mPPE extrusion grade material for applications such as automotive wire insulation. Low specific gravity with good flame retardant and very good scrape abrasion resistance. Designed for evaluation in applications requiring ISO6722. 72 Shore D hardness. Processed using standard extrusion equipment.

General Information			
Additive	Flame retardancy		
Features	Low density		
	Good flexibility		
	Good wear resistance		
	Halogen-free		
	Flame retardancy		
Uses	Wire and cable applications		
	Insulating material		
	Automotive Electronics		
RoHS Compliance	RoHS compliance		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.03	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (280°C/5.0 kg)	14	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (280°C/5.0 kg)	13.4	cm ³ /10min	ISO 1133
Water Absorption			ISO 62
Saturated, 23°C	0.12	%	ISO 62
Equilibrium, 23°C, 50% RH	0.050	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	1710	MPa	ASTM D638
--	1760	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	43.8	MPa	ASTM D638
Yield	44.6	MPa	ISO 527-2/50
Fracture ³	41.5	MPa	ASTM D638
Fracture	42.1	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	15	%	ASTM D638
Yield	11	%	ISO 527-2/50

Fracture ⁵	83	%	ASTM D638
Fracture	46	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁶	1560	MPa	ASTM D790
-- ⁷	1750	MPa	ISO 178
Flexural Stress			
--	59.3	MPa	ISO 178
Yield, 50.0mm span ⁸	53.2	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	34	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	67	J/m	ASTM D256
23°C	310	J/m	ASTM D256
-30°C ¹⁰	6.9	kJ/m ²	ISO 180/1A
23°C ¹¹	37	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	45.9	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, unannealed, 3.20mm	92.0	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹²	98.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	114	°C	ASTM D1525, ISO 306/B50 ¹³
--	117	°C	ISO 306/B120
Linear thermal expansion coefficient			
Flow: -40 to 40°C	8.5E-5	cm/cm/°C	ASTM E831
Flow: -40 to 40°C	8.4E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	1.1E-4	cm/cm/°C	ASTM E831, ISO 11359-2
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 mm		
13.	标准 B (120°C/h), 载荷2 (50N)		

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