

NORYL™ WCV063 resin

Polyphenylene Ether + SEBS + Polyolefin

SABIC Innovative Plastics

Message:

Flexible, non-halogenated FR, mPPE extrusion grade material for evaluation in automotive wire coating applications requiring ISO6722.

General Information			
Features	Good flexibility		
	Halogen-free		
	Flame retardancy		
Uses	Wire and cable applications		
	Wire sheath		
	Application in Automobile Field		
Agency Ratings	ISO 6722		
Processing Method	Extrusion coating		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.03	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (280°C/5.0 kg)	33	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 10 sec)	63		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	840	MPa	ASTM D638
--	690	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	28.0	MPa	ASTM D638
Yield	25.0	MPa	ISO 527-2
Fracture ³	28.0	MPa	ASTM D638
Fracture	25.0	MPa	ISO 527-2/50
Tensile Strain			
Yield	20	%	ISO 527-2/50
Fracture ⁴	90	%	ASTM D638
Fracture	50	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁵	720	MPa	ASTM D790
--	790	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			

-30°C	170	J/m	ASTM D256
23°C	560	J/m	ASTM D256
-30°C ⁶	14	kJ/m ²	ISO 180/1A
23°C ⁷	37	kJ/m ²	ISO 180/1A

Thermal	Nominal Value	Unit	Test Method
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Deflection Temperature Under Load

0.45 MPa, unannealed, 3.20mm	82.0	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	56.0	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ⁸	66.0	°C	ISO 75-2/Af

Electrical	Nominal Value	Test Method
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Dielectric Constant (1.00 GHz)	2.47	ASTM D150
Dissipation Factor (1.00 GHz)	3.2E-3	ASTM D150

Extrusion	Nominal Value	Unit
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Drying Temperature	80.0 - 100	°C
Drying Time	4.0 - 6.0	hr
Suggested Max Moisture	0.020	%
Cylinder Zone 1 Temp.	200 - 260	°C
Cylinder Zone 3 Temp.	270 - 300	°C
Cylinder Zone 5 Temp.	280 - 300	°C
Melt Temperature	280 - 300	°C
Die Temperature	280 - 300	°C

Extrusion instructions

Compression Ratio 2;1-3:1Conductor Pre-heat Temperature: 100 - 150 °CCooling Water Air Gap: 100 - 1000 mmCross-head Temperature: 280 - 300 °CDrying Time (Cumulative): 8 hrsExtruder Length/Diameter Ratio (L/D): >24:1Neck Temperature: 280 - 300 °CScreen Pack: 60/200/60Screw Speed: 5 - 60 rpmWater Bath Temperature: 15 - 30 °C

NOTE

1.	50 mm/min
2.	Type 1, 50mm/min
3.	Type 1, 50mm/min
4.	Type 1, 50mm/min
5.	1.3 mm/min
6.	80*10*4
7.	80*10*4
8.	80*10*4 mm

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