

NORYL™ WCV065 resin

Polyphenylene Ether + Polyolefin

SABIC Innovative Plastics

Message:

Flexible, non-halogenated FR, PPE+Polyolefin resin designed for evaluation in Automotive ISO6722 Class A-C applications.

General Information			
Features	Good flexibility		
	Halogen-free		
	Flame retardancy		
Uses	Application in Automobile Field		
Processing Method	Extrusion coating		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.04	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (280°C/5.0 kg)	20	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (280°C/5.0 kg)	20.9	cm ³ /10min	ISO 1133
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shao D, 30 seconds)	65		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1450	MPa	ISO 527-2/1
Tensile Strength			
Yield ¹	37.0	MPa	ASTM D638
Yield	39.0	MPa	ISO 527-2/50
Fracture ²	37.0	MPa	ASTM D638
Fracture	37.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ³	37	%	ASTM D638
Yield	17	%	ISO 527-2/50
Fracture ⁴	45	%	ASTM D638
Fracture	38	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁵	1150	MPa	ASTM D790
-- ⁶	1260	MPa	ISO 178
Flexural Stress			
--	44.0	MPa	ISO 178
Yield, 50.0mm span ⁷	41.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁸ (23°C)	43	kJ/m ²	ISO 179/1eA

Notched Izod Impact			
23°C	550	J/m	ASTM D256
-30°C ⁹	9.0	kJ/m ²	ISO 180/1A
23°C ¹⁰	41	kJ/m ²	ISO 180/1A
Instrumented Dart Impact			ASTM D3763
-30°C, Total Energy	42.0	J	ASTM D3763
23°C, Total Energy	33.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	115	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	84.0	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹¹	93.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	71.0	°C	ASTM D1525, ISO 306/B50 ⁹ ¹²
--	76.0	°C	ISO 306/B120
Linear thermal expansion coefficient			ASTM E831
Flow: -40 to 40°C	8.2E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	1.3E-4	cm/cm/°C	ASTM E831
Electrical	Nominal Value		Test Method
Relative Permittivity (1 MHz)	2.55		IEC 60250
Dissipation Factor (1 MHz)	2.0E-3		IEC 60250
Extrusion	Nominal Value	Unit	
Drying Temperature	60.0 - 80.0	°C	
Drying Time	4.0 - 6.0	hr	
Suggested Max Moisture	0.020	%	
Cylinder Zone 1 Temp.	210 - 260	°C	
Cylinder Zone 3 Temp.	230 - 285	°C	
Cylinder Zone 5 Temp.	250 - 285	°C	
Melt Temperature	250 - 285	°C	
Die Temperature	250 - 285	°C	
Extrusion instructions			
Conductor Pre-heat Temperature: 80 - 150 °CCooling Water Air Gap: 100 - 200 mmCross-head Temperature: 250 - 285 °CDrying Time (Cumulative): 12 hrsExtruder Length/Diameter Ratio (L/D): 22:1 to 26:1Neck Temperature: 250 - 285 °CScreen Pack: 150 - 100Screw Speed: 15 - 40 rpmWater Bath Temperature: 15 - 80 °C			
NOTE			
1.	Type 1, 50mm/min		
2.	Type 1, 50mm/min		
3.	Type 1, 50mm/min		
4.	Type 1, 50mm/min		
5.	1.3 mm/min		
6.	2.0 mm/min		
7.	1.3 mm/min		

8.	80*10*4 sp=62mm
9.	80*10*4
10.	80*10*4
11.	80*10*4 mm
12.	标准 B (120°C/h), 载荷2 (50N)

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