

NORYL™ PVX0800 resin

Polyphenylene Ether

SABIC Innovative Plastics

Message:

NORYL PVX0800 resin is a high flow, V0 = 1.5 mm grade, suitable for a variety of electronics applications.

General Information			
UL YellowCard	E121562-101368574		
Features	High Flow		
Uses	Electrical/Electronic Applications		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.11	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/5.0 kg)	6.0	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR)			ISO 1133
260°C/5.0 kg	22.0	cm ³ /10min	
280°C/5.0 kg	47.0	cm ³ /10min	
Water Absorption (Equilibrium, 23°C, 50% RH)	0.070	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2670	MPa	ASTM D638
--	2580	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	57.0	MPa	ASTM D638
Yield	53.0	MPa	ISO 527-2/50
Break ³	43.0	MPa	ASTM D638
Break	42.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	3.0	%	ASTM D638
Yield	2.7	%	ISO 527-2/50
Break ⁵	15	%	ASTM D638
Break	27	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2700	MPa	ASTM D790
6.40 mm	2700	MPa	ASTM D790
-- ⁷	2390	MPa	ISO 178
Flexural Stress			
--	83.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	86.0	MPa	ASTM D790

Yield, 6.40 mm	88.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	10	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength ¹⁰ (-30°C)	6.0	kJ/m ²	ISO 179/1eU
Notched Izod Impact			
-30°C	100	J/m	ASTM D256
23°C	250	J/m	ASTM D256
-30°C ¹¹	7.0	kJ/m ²	ISO 180/1A
23°C ¹²	10	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	30.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	88.0	°C	ASTM D648
0.45 MPa, Unannealed, 6.40 mm	92.0	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹³	90.0	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	78.0	°C	ASTM D648
1.8 MPa, Unannealed, 6.40 mm	82.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹⁴	79.0	°C	ISO 75-2/Af
Vicat Softening Temperature	98.0	°C	ASTM D1525 ¹⁵
RTI Elec	65.0	°C	UL 746
RTI Imp	65.0	°C	UL 746
RTI Str	65.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms · cm	IEC 60093
Comparative Tracking Index	250	V	IEC 60112
High Amp Arc Ignition (HAI)	PLC 3		UL 746
Hot-wire Ignition (HWI)	PLC 2		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm, Testing by SABIC)	V-0		UL 94
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (280°C, 1500 sec ⁻¹)	98.0	Pa · s	ISO 11443
Injection	Nominal Value	Unit	
Drying Temperature	76.7 to 82.2	°C	
Drying Time	3.0 to 4.0	hr	
Drying Time, Maximum	8.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	30 to 70	%	
Rear Temperature	216 to 266	°C	
Middle Temperature	227 to 271	°C	
Front Temperature	238 to 277	°C	
Nozzle Temperature	249 to 277	°C	

Processing (Melt) Temp	249 to 277	°C
Mold Temperature	54.4 to 76.7	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	20 to 100	rpm
Vent Depth	0.038 to 0.051	mm

NOTE

1.	50 mm/min
2.	Type I, 50 mm/min
3.	Type I, 50 mm/min
4.	Type I, 50 mm/min
5.	Type I, 50 mm/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 sp=62mm
11.	80*10*4
12.	80*10*4
13.	80*10*4 mm
14.	80*10*4 mm
15.	Rate B (120°C/h), Loading 2 (50 N)

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