

NORYL™ PX9406P resin

Polyphenylene Ether + PS

SABIC Innovative Plastics Asia Pacific

Message:

NORYL PX9406P resin is an FR (non-halogenated) grade potentially suitable for a variety of electronics applications. RTI (impact) = 105 C. F1 listed in BK color.

General Information			
UL YellowCard	E121562-101325734	E121562-101325735	
Features	Halogen-free		
	Flame retardancy		
Uses	Electrical/Electronic Applications		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.10	g/cm ³	ASTM D792
Melt Volume-Flow Rate (MVR) (280°C/5.0 kg)	10.0	cm ³ /10min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2800	MPa	ASTM D638
--	2730	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	76.0	MPa	ASTM D638
Yield	76.0	MPa	ISO 527-2/50
Fracture ³	55.0	MPa	ASTM D638
Fracture	55.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	4.7	%	ASTM D638
Yield	4.7	%	ISO 527-2/50
Fracture ⁵	9.7	%	ASTM D638
Fracture	9.4	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁶	2840	MPa	ASTM D790
6.40 mm	2840	MPa	ASTM D790
-- ⁷	2580	MPa	ISO 178
Flexural Stress			
--	114	MPa	ISO 178
Yield, 50.0mm span ⁸	113	MPa	ASTM D790
Yield, 6.40mm	114	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method

Charpy Notched Impact Strength ⁹			ISO 179/1eA
-30°C	8.0	kJ/m ²	ISO 179/1eA
23°C	11	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	60	J/m	ASTM D256
23°C	130	J/m	ASTM D256
-30°C ¹⁰	8.0	kJ/m ²	ISO 180/1A
23°C ¹¹	10	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	52.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, unannealed, 64.0mm span ¹²	133	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 3.20mm	118	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	122	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹³	118	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	150	°C	ISO 306/A120
--	140	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
RTI Elec	110	°C	UL 746
RTI Imp	105	°C	UL 746
RTI	110	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index	250	V	IEC 60112
High Voltage Arc Tracking Rate (HVTR)	PLC 4		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.750 mm, Testing by SABIC	V-0		UL 94
2.00 mm, Testing by SABIC	5VB		UL 94
2.50 mm, Testing by SABIC	5VA		UL 94
Glow Wire Flammability Index (0.750 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
0.800 mm	750	°C	IEC 60695-2-13
1.50 mm	775	°C	IEC 60695-2-13
Injection	Nominal Value	Unit	
Drying Temperature	104 - 110	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	8.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	30 - 70	%	
Rear Temperature	243 - 293	°C	

Middle Temperature	254 - 299	°C
Front Temperature	266 - 304	°C
Nozzle Temperature	277 - 304	°C
Processing (Melt) Temp	277 - 304	°C
Mold Temperature	71.1 - 98.9	°C
Back Pressure	0.345 - 0.689	MPa
Screw Speed	20 - 100	rpm
Vent Depth	0.038 - 0.051	mm

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.	80*10*4 mm

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