

NORYL™ PX0844 resin

Polyphenylene Ether + PS

SABIC Innovative Plastics

Message:

PPE+PS blend. Unfilled. UL94 HB rated. Low water absorption. Hydrolytic stability. Dimensional stability.

General Information			
Features	Good Dimensional Stability		
	Hydrolytically Stable		
	Low to No Water Absorption		
Processing Method	Injection Molding		
Multi-Point Data	Compressive Stress vs. Strain (ASTM D695)		
	Elastic Modulus vs Temperature (ASTM D4065)		
	Flexural DMA (ASTM D4065)		
	Pressure-Volume-Temperature (PVT - Zoller Method)		
	Specific Heat vs. Temperature (ASTM D3417)		
	Tensile Creep (ASTM D2990)		
	Tensile Fatigue		
	Tensile Stress vs. Strain (ASTM D638)		
	Thermal Conductivity vs. Temperature (ASTM E1530)		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.06	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (280°C/5.0 kg)	14	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.50 to 0.70	%	Internal Method
Water Absorption (24 hr)	0.10	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	114		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2290	MPa	ASTM D638
--	2350	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	49.6	MPa	ASTM D638
Yield	47.0	MPa	ISO 527-2
Break ³	44.0	MPa	ASTM D638
Break	43.0	MPa	ISO 527-2
Tensile Elongation			
Yield ⁴	3.0	%	ASTM D638

Yield	2.9	%	ISO 527-2
Break ⁵	27	%	ASTM D638
Break	43	%	ISO 527-2
Flexural Modulus			
50.0 mm Span ⁶	2550	MPa	ASTM D790
100 mm Span ⁷	2240	MPa	ASTM D790
--	2400	MPa	ISO 178
Flexural Stress			
--	78.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	80.0	MPa	ASTM D790
Yield, 100 mm Span ⁹	75.8	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/2C
-30°C	10	kJ/m ²	
23°C	17	kJ/m ²	
Notched Izod Impact			
-40°C	130	J/m	ASTM D256
-30°C	180	J/m	ASTM D256
23°C	230	J/m	ASTM D256
-30°C ¹⁰	10	kJ/m ²	ISO 180/1A
23°C ¹¹	18	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	40.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	120	°C	ASTM D648
0.45 MPa, Unannealed, 6.40 mm	121	°C	ASTM D648
0.45 MPa, Unannealed, 100 mm Span ¹²	122	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 3.20 mm	105	°C	ASTM D648
1.8 MPa, Unannealed, 6.40 mm	113	°C	ASTM D648
1.8 MPa, Unannealed, 100 mm Span ¹³	107	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	125	°C	ISO 306/B50
--	128	°C	ISO 306/B120
CLTE - Flow (0 to 100°C)	7.4E-5	cm/cm/°C	ASTM E831
Injection	Nominal Value	Unit	
Drying Temperature	104 to 110	°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	243 to 293	°C	

Middle Temperature	254 to 299	°C
Front Temperature	266 to 304	°C
Nozzle Temperature	277 to 304	°C
Processing (Melt) Temp	277 to 304	°C
Mold Temperature	71.1 to 98.9	°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.	5.0 mm/min
2.	Type I, 50 mm/min
3.	Type I, 50 mm/min
4.	Type I, 5.0 mm/min
5.	Type I, 50 mm/min
6.	1.3 mm/min
7.	2.6 mm/min
8.	1.3 mm/min
9.	2.6 mm/min
10.	80*10*4
11.	80*10*4
12.	120*10*4 mm
13.	120*10*4 mm

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