

# NORYL PPX™ PPX830 resin

Polyphenylene Ether + PS + PP

SABIC Innovative Plastics

## Message:

NORYL PPX830 Polyphenylene Oxide (PPO\*) + Polypropylene (PP) resin is a 30 % Glass Reinforced, injection moldable grade with a HDT /1.8MPa temperature resistance of 153 deg C and a Tensile modulus of 7600 MPa; this grade has been developed for application where dimension stability, temperature and chemical resistance could be required. NORYL PPX830 is an opaque material available in limited colors only.

General Information			
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Features	Good Chemical Resistance Good Dimensional Stability		
Appearance	Colors Available Opaque		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm <sup>3</sup>	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (280°C/5.0 kg)	6.0	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (280°C/5.0 kg)	6.00	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage			Internal Method
Flow : 3.20 mm	0.20 to 0.25	%	
Across Flow : 3.20 mm	0.40 to 0.60	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- <sup>1</sup>	7600	MPa	ASTM D638
--	7700	MPa	ISO 527-2/1
Tensile Strength			
Yield <sup>2</sup>	101	MPa	ASTM D638
Yield	98.0	MPa	ISO 527-2/5
Break <sup>3</sup>	101	MPa	ASTM D638
Break	98.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield <sup>4</sup>	2.9	%	ASTM D638
Yield	3.2	%	ISO 527-2/5
Break <sup>5</sup>	100	%	ASTM D638
Break	3.2	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span <sup>6</sup>	6600	MPa	ASTM D790

-- <sup>7</sup>	7100	MPa	ISO 178
Flexural Stress			
--	141	MPa	ISO 178
Yield, 50.0 mm Span <sup>8</sup>	144	MPa	ASTM D790
<b>Impact</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Charpy Unnotched Impact Strength <sup>9</sup>			ISO 179/1eU
-30°C	36	kJ/m <sup>2</sup>	
23°C	39	kJ/m <sup>2</sup>	
Notched Izod Impact			
23°C	95	J/m	ASTM D256
23°C <sup>10</sup>	10	kJ/m <sup>2</sup>	ISO 180/1A
Unnotched Izod Impact			
23°C	650	J/m	ASTM D4812
-30°C <sup>11</sup>	42	kJ/m <sup>2</sup>	ISO 180/1U
23°C <sup>12</sup>	42	kJ/m <sup>2</sup>	ISO 180/1U
Instrumented Dart Impact			ASTM D3763
-30°C, Total Energy	10.0	J	
23°C, Total Energy	15.0	J	
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	166	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span <sup>13</sup>	168	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	156	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span <sup>14</sup>	153	°C	ISO 75-2/Af
Vicat Softening Temperature	150	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			
Flow : -40 to 95°C	2.5E-5	cm/cm/°C	ASTM E831
Flow : -30 to 80°C	2.5E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 95°C	1.3E-4	cm/cm/°C	ASTM E831
Transverse : -30 to 80°C	1.2E-4	cm/cm/°C	ISO 11359-2
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating (1.00 mm)	HB		UL 94
Glow Wire Flammability Index (3.00 mm)	650	°C	IEC 60695-2-12
<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>	
Drying Temperature	65.0 to 75.0	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 to 80.0	°C	
Rear Temperature	245 to 290	°C	
Middle Temperature	250 to 290	°C	
Front Temperature	255 to 290	°C	

Nozzle Temperature	260 to 300	°C
Processing (Melt) Temp	260 to 300	°C
Mold Temperature	40.0 to 65.0	°C

**NOTE**

1.	5.0 mm/min
2.	Type I, 5.0 mm/min
3.	Type I, 5.0 mm/min
4.	Type I, 5.0 mm/min
5.	Type I, 5.0 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
11.	80*10*4
12.	80*10*4
13.	80*10*4 mm
14.	80*10*4 mm

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**Recommended distributors for this material**

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