

# NORYL PPX™ RESIN PPX630

REGION EUROPE

## DESCRIPTION

NORYL PPX630 resin is a 30% glass fiber reinforced alloy of polyphenylene ether (PPE) + polypropylene (PP). This injection moldable grade exhibits high elongation and high stiffness along with temperature performance, impact resistance, hydrolytic and dimensional stability. NORYL PPX630 resin is an excellent candidate for hot water system exteriors, condensate housings, and printer internals. \*See NORYL PPX630F resin for NSF 6.1

GENERAL INFORMATION	
Features	Chemical Resistance, Hydrolytic Stability, Low Warpage, Low Shrinkage, Low Moisture Absorption, Low Specific Gravity, Dimensional stability, High stiffness/Strength, High temperature resistance, Impact resistant, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polyphenylene Ether + PP (PPE+PP)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Heavy Truck
Building and Construction	Water Management
Electrical and Electronics	Mobile Phone - Computer - Tablets

## TYPICAL PROPERTY VALUES

Revision 20241016

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, break, 5 mm/min	80	MPa	ISO 527
Tensile Strain, break, 5 mm/min	4.1	%	ISO 527
Tensile Modulus, 1 mm/min	6600	MPa	ISO 527
Flexural Stress, break, 2 mm/min	120	MPa	ISO 178
Flexural Modulus, 2 mm/min	5500	MPa	ISO 178
Ball Indentation Hardness, H358/30	75	MPa	ISO 2039-1
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched 80*10*4 +23°C	48	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	46	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	15	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	10	kJ/m <sup>2</sup>	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	15	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	10	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	50	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	50	kJ/m <sup>2</sup>	ISO 179/1eU
<b>THERMAL <sup>(1)</sup></b>			
CTE, 23°C to 60°C, flow	2.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.15E-04	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/50	125	°C	ISO 306
Vicat Softening Temp, Rate B/120	128	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	155	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	135	°C	ISO 75/Ae
<b>PHYSICAL <sup>(1)</sup></b>			
Moisture absorption (23°C/50% RH)	0.04	%	-
Mold Shrinkage on Tensile Bar, flow <sup>(2)</sup>	0.2 – 0.3	%	SABIC method
Mold Shrinkage on Tensile Bar, xflow <sup>(2)</sup>	0.2 – 0.7	%	SABIC method
Density	1.19	g/cm <sup>3</sup>	ISO 1183
Water Absorption, (23°C/saturated)	0.2	%	ISO 62-1
Melt Volume Rate, MVR at 260°C/5.0 kg	3	cm <sup>3</sup> /10 min	ISO 1133
<b>ELECTRICAL <sup>(1)</sup></b>			
Volume Resistivity	>1.E+15	Ω.cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ω	IEC 60093
Dielectric Strength, in oil, 3.2 mm	24	kV/mm	IEC 60243-1
Relative Permittivity, 1 MHz	2.4	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.0003	-	IEC 60250
Dissipation Factor, 1 MHz	0.001	-	IEC 60250
Comparative Tracking Index <sup>(3)</sup>	500	V	IEC 60112
Relative Permittivity, 50/60 Hz	2.4	-	IEC 60250
<b>FLAME CHARACTERISTICS <sup>(4)</sup></b>			
UL Yellow Card Link	<a href="#">E45329-100962693</a>	-	-
UL Recognized, 94HB Flame Class Rating	≥1.5	mm	UL 94
Glow Wire Flammability Index 650°C, passes at	3.2	mm	IEC 60695-2-12
<b>INJECTION MOLDING <sup>(5)</sup></b>			
Drying Temperature	65 – 75	°C	
Drying Time	2 – 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	260 – 300	°C	
Nozzle Temperature	260 – 300	°C	
Front - Zone 3 Temperature	255 – 290	°C	
Middle - Zone 2 Temperature	250 – 290	°C	
Rear - Zone 1 Temperature	245 – 290	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	40 – 65	°C	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(3) Value shown here is based on internal measurement.

(4) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(5) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.



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