

NORYL PPXTM RESIN PPX630

REGION AMERICAS

DESCRIPTION

NORYL PPXTM 630 resin is a 30% glass 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 61.

TYPICAL PROPERTY VALUES

Revision 20200610

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|--|----------------|----------|--------------|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 5 mm/min | 79 | MPa | ASTM D 638 |
| Tensile Stress, brk, Type I, 5 mm/min | 79 | MPa | ASTM D 638 |
| Tensile Strain, brk, Type I, 5 mm/min | 7.7 | % | ASTM D 638 |
| Flexural Stress, brk, 1.3 mm/min, 50 mm span | 129 | MPa | ASTM D 790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 5550 | MPa | ASTM D 790 |
| IMPACT | | | |
| Izod Impact, unnotched, 23°C | 827 | J/m | ASTM D 4812 |
| Izod Impact, notched, 23°C | 165 | J/m | ASTM D 256 |
| Izod Impact, notched, -30°C | 101 | J/m | ASTM D 256 |
| Instrumented Impact Total Energy, 23°C | 19 | J | ASTM D 3763 |
| Instrumented Impact Total Energy, -30°C | 20 | J | ASTM D 3763 |
| THERMAL | | | |
| Vicat Softening Temp, Rate B/50 | 162 | °C | ASTM D 1525 |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 155 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 133 | °C | ASTM D 648 |
| CTE, -40°C to 40°C, flow | 1.44E-05 | 1/°C | ASTM E 831 |
| CTE, -40°C to 40°C, xflow | 7.74E-05 | 1/°C | ASTM E 831 |
| PHYSICAL | | | |
| Specific Gravity | 1.19 | - | ASTM D 792 |
| Mold Shrinkage, flow, 3.2 mm | 0.2 – 0.23 | % | SABIC method |
| Mold Shrinkage, xflow, 3.2 mm | 0.25 – 0.76 | % | SABIC method |
| Melt Flow Rate, 260°C/5.0 kgf | 2.6 | g/10 min | ASTM D 1238 |
| FLAME CHARACTERISTICS⁽¹⁾ | | | |
| UL Yellow Card Link | E121562-221227 | - | - |
| UL Recognized, 94HB Flame Class Rating | ≥1.5 | mm | UL 94 |
| INJECTION MOLDING | | | |
| Drying Temperature | 65 – 75 | °C | |
| Drying Time | 2 – 4 | hrs | |
| Drying Time (Cumulative) | 8 | hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 260 – 300 | °C | |
| Nozzle Temperature | 260 – 300 | °C | |
| Front - Zone 3 Temperature | 255 – 295 | °C | |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|-----------------------------|----------------|-------|--------------|
| Middle - Zone 2 Temperature | 250 – 290 | °C | |
| Rear - Zone 1 Temperature | 245 – 290 | °C | |
| Mold Temperature | 40 – 65 | °C | |
| Back Pressure | 0.3 – 0.7 | MPa | |
| Screw Speed | 20 – 100 | rpm | |
| Shot to Cylinder Size | 30 – 70 | % | |
| Vent Depth | 0.051 – 0.076 | mm | |

(1) 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.

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