# NORYL PPX™ RESIN PPX7115F

REGION AMERICAS

## DESCRIPTION

NORYL PPX7115F resin is a non-reinforced alloy of polyphenylene ether (PPE) + polypropylene (PP). This FDA certified injection moldable grade exhibits high impact resistance and good heat resistance along with hydrolytic and dimensional stability. NORYL PPX7115F resin is an excellent candidate for food contact applications requiring high impact, chemical resistance, and good heat performance.

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

| INDUSTRY | SUB INDUSTRY |
|---|---|
| Building and Construction | Water Management |

## TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL [1] | | | |
| **Tensile Stress, yld, Type I, 50 mm/min** | 35 | MPa | ASTM D638 |
| **Tensile Stress, brk, Type I, 50 mm/min** | 34 | MPa | ASTM D638 |
| **Tensile Strain, yld, Type I, 50 mm/min** | 8 | % | ASTM D638 |
| **Tensile Strain, brk, Type I, 50 mm/min** | 125 | % | ASTM D638 |
| **Tensile Modulus, 50 mm/min** | 1240 | MPa | ASTM D638 |
| **Flexural Stress, yld, 1.3 mm/min, 50 mm span** | 51 | MPa | ASTM D790 |
| **Flexural Modulus, 1.3 mm/min, 50 mm span** | 1370 | MPa | ASTM D790 |
| **Tensile Stress, yield, 50 mm/min** | 35 | MPa | ISO 527 |
| **Tensile Strain, break, 50 mm/min** | 75 | % | ISO 527 |
| **Tensile Modulus, 1 mm/min** | 1370 | MPa | ISO 527 |
| IMPACT [1] | | | |
| **Izod Impact, notched, 23°C** | 534 | J/m | ASTM D256 |
| **Instrumented Dart Impact Total Energy, 23°C** | 37 | J | ASTM D3763 |
| **Instrumented Dart Impact Total Energy, -30°C** | 30 | J | ASTM D3763 |
| THERMAL [1] | | | |
| **Vicat Softening Temp, Rate B/50** | 86 | °C | ASTM D1525 |
| **HDT, 0.45 MPa, 3.2 mm, unannealed** | 112 | °C | ASTM D648 |
| **HDT, 1.82 MPa, 3.2mm, unannealed** | 85 | °C | ASTM D648 |
| **CTE, -40°C to 40°C, flow** | 1.62E-04 | 1/°C | ASTM E831 |
| **CTE, -40°C to 40°C, xflow** | 9.72E-05 | 1/°C | ASTM E831 |
| **Vicat Softening Temp, Rate A/50** | 131 | °C | ISO 306 |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| **PHYSICAL** [1] | | | |
| Specific Gravity | 0.99 | - | ASTM D792 |
| Mold Shrinkage, flow, 3.2 mm [2] | 0.6 – 0.7 | % | SABIC method |
| Mold Shrinkage, xflow, 3.2 mm [2] | 0.6 – 0.8 | % | SABIC method |
| Melt Flow Rate, 260°C/5.0 kgf | 14 | g/10 min | ASTM D1238 |
| Melt Volume Rate, MVR at 260°C/5.0 kg | 12 | cm³/10 min | ISO 1133 |
| **FLAME CHARACTERISTICS** [3] | | | |
| UL Yellow Card Link | E121562-221243 | - | - |
| UL Recognized, 94HB Flame Class Rating | ≥1.5 | mm | UL 94 |
| **INJECTION MOLDING** [4] | | | |
| Drying Temperature | 60 – 65 | °C | |
| Drying Time | 2 – 4 | Hrs | |
| Drying Time (Cumulative) | 8 | Hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 260 – 290 | °C | |
| Nozzle Temperature | 260 – 290 | °C | |
| Front - Zone 3 Temperature | 250 – 290 | °C | |
| Middle - Zone 2 Temperature | 240 – 280 | °C | |
| Rear - Zone 1 Temperature | 225 – 275 | °C | |
| Mold Temperature | 30 – 50 | °C | |
| Back Pressure | 0.3 – 0.7 | MPa | |
| Screw Speed | 20 – 100 | rpm | |
| Shot to Cylinder Size | 30 – 70 | % | |
| Vent Depth | 0.038 – 0.051 | mm | |

(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) 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.
(4) 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.

## ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

## DISCLAIMER