

NORYL™ RESIN SE100X

REGION ASIA

DESCRIPTION

PPE+PS blend. Unfilled. Non-brominated, non-chlorinated FR system. UL94 V0/V1 rated. RTI Elec/Imp/Str 95/80/95. Good flow. Suitable for E/E market indoor/outdoor applications.

TYPICAL PROPERTY VALUES

Revision 20180906

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|----------|--------------|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 50 mm/min | 57 | MPa | ASTM D 638 |
| Tensile Stress, brk, Type I, 50 mm/min | 46 | MPa | ASTM D 638 |
| Tensile Strain, yld, Type I, 50 mm/min | 6.5 | % | ASTM D 638 |
| Tensile Strain, brk, Type I, 50 mm/min | 25 | % | ASTM D 638 |
| Flexural Stress, yld, 2.6 mm/min, 100 mm span | 82 | MPa | ASTM D 790 |
| Flexural Modulus, 2.6 mm/min, 100 mm span | 2300 | MPa | ASTM D 790 |
| IMPACT | | | |
| Izod Impact, notched, 23°C | 256 | J/m | ASTM D 256 |
| Izod Impact, notched, -30°C | 90 | J/m | ASTM D 256 |
| Instrumented Impact Energy @ peak, 23°C | 40 | J | ASTM D 3763 |
| Instrumented Impact Energy @ peak, -30 | 16 | J | ASTM D 3763 |
| THERMAL | | | |
| HDT, 0.45 MPa, 6.4 mm, unannealed | 102 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 6.4 mm, unannealed | 92 | °C | ASTM D 648 |
| Relative Temp Index, Elec | 95 | °C | UL 746B |
| Relative Temp Index, Mech w/impact | 80 | °C | UL 746B |
| Relative Temp Index, Mech w/o impact | 95 | °C | UL 746B |
| PHYSICAL | | | |
| Specific Gravity | 1.1 | - | ASTM D 792 |
| Mold Shrinkage, flow, 3.2 mm | 0.5 – 0.7 | % | SABIC method |
| Mold Shrinkage on Tensile Bar, xflow | 0.5 – 0.7 | % | SABIC method |
| ELECTRICAL | | | |
| Volume Resistivity | 3.1E+16 | Ohm-cm | ASTM D 257 |
| Surface Resistivity | >1.E+15 | Ohm | ASTM D 257 |
| Dielectric Strength, in oil, 3.2 mm | 17.9 | kV/mm | ASTM D 149 |
| Relative Permittivity, 50/60 Hz | 2.66 | - | ASTM D 150 |
| Relative Permittivity, 1 MHz | 2.57 | - | ASTM D 150 |
| Dissipation Factor, 50/60 Hz | 0.006 | - | ASTM D 150 |
| Dissipation Factor, 1 MHz | 0.0026 | - | ASTM D 150 |
| Arc Resistance, Tungsten {PLC} | 7 | PLC Code | ASTM D 495 |
| High Voltage Arc Track Rate {PLC} | 4 | PLC Code | UL 746A |
| Comparative Tracking Index (UL) {PLC} | 1 | PLC Code | UL 746A |
| FLAME CHARACTERISTICS | | | |
| UL Recognized, 94V-1 Flame Class Rating | 1.47 | mm | UL 94 |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|-------|--------------|
| UL Recognized, 94V-0 Flame Class Rating | 5.99 | mm | UL 94 |
| Oxygen Index (LOI) | 32.5 | % | ASTM D 2863 |
| Radiant Panel Listing | ☑ | - | UL Tested |
| UV-light, water exposure/immersion | F1 | - | UL 746C |
| INJECTION MOLDING | | | |
| Drying Temperature | 75 – 80 | °C | |
| Drying Time | 3 – 4 | hrs | |
| Drying Time (Cumulative) | 8 | hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 250 – 275 | °C | |
| Nozzle Temperature | 250 – 275 | °C | |
| Front - Zone 3 Temperature | 240 – 275 | °C | |
| Middle - Zone 2 Temperature | 225 – 270 | °C | |
| Rear - Zone 1 Temperature | 215 – 265 | °C | |
| Mold Temperature | 55 – 75 | °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 | |

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.