

# NORYL™ RESIN RN0206

REGION ASIA

## DESCRIPTION

NORYL RN0206 resin is an non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This Post Consumer Recycle (PCR) based injection moldable resin containing minimum 10% PCR styrenic series resin content and is available only in black.

### GENERAL INFORMATION

|                       |                                                                                                                                                                                                    |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Features              | Hydrolytic Stability, Low Warpage, Amorphous, Low Shrinkage, Low Moisture Absorption, Low Specific Gravity, Sustainable (Mechanical Recycling), Dimensional stability, No PFAS intentionally added |
| Fillers               | Unreinforced                                                                                                                                                                                       |
| Polymer Types         | Polyphenylene Ether + PS (PPE+PS)                                                                                                                                                                  |
| Processing Techniques | Injection Molding                                                                                                                                                                                  |

### INDUSTRY

Industrial

### SUB INDUSTRY

Electrical

## TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES                                          | TYPICAL VALUES                    | UNITS    | TEST METHODS   |
|-----------------------------------------------------|-----------------------------------|----------|----------------|
| <b>MECHANICAL <sup>(1)</sup></b>                    |                                   |          |                |
| Tensile Stress, yld, Type I, 50 mm/min              | 73                                | MPa      | ASTM D638      |
| Tensile Strain, brk, Type I, 50 mm/min              | 14                                | %        | ASTM D638      |
| Flexural Stress, yld, 2.6 mm/min, 100 mm span       | 100                               | MPa      | ASTM D790      |
| Flexural Modulus, 2.6 mm/min, 100 mm span           | 2500                              | MPa      | ASTM D790      |
| <b>IMPACT <sup>(1)</sup></b>                        |                                   |          |                |
| Izod Impact, notched, 23°C                          | 180                               | J/m      | ASTM D256      |
| <b>THERMAL <sup>(1)</sup></b>                       |                                   |          |                |
| HDT, 1.82 MPa, 6.4 mm, unannealed                   | 118                               | °C       | ASTM D648      |
| Ball Pressure Test, approximate maximum             | 120                               | °C       | IEC 60695-10-2 |
| Relative Temp Index, Elec <sup>(2)</sup>            | 125                               | °C       | UL 746B        |
| Relative Temp Index, Mech w/impact <sup>(2)</sup>   | 125                               | °C       | UL 746B        |
| Relative Temp Index, Mech w/o impact <sup>(2)</sup> | 125                               | °C       | UL 746B        |
| <b>PHYSICAL <sup>(1)</sup></b>                      |                                   |          |                |
| Specific Gravity                                    | 1.1                               | -        | ASTM D792      |
| Melt Flow Rate, 250°C/10.0 kgf                      | 5                                 | g/10 min | ASTM D1238     |
| <b>ELECTRICAL <sup>(1)</sup></b>                    |                                   |          |                |
| Dielectric Strength, in air, 3.2 mm                 | 27                                | kV/mm    | ASTM D149      |
| Comparative Tracking Index (UL) {PLC}               | 2                                 | PLC Code | UL 746A        |
| Hot-Wire Ignition (HWI), PLC 1                      | ≥3                                | mm       | UL 746A        |
| <b>FLAME CHARACTERISTICS <sup>(2)</sup></b>         |                                   |          |                |
| UL Yellow Card Link                                 | <a href="#">E207780-100850147</a> | -        | -              |
| UL Recognized, 94V-0 Flame Class Rating             | ≥0.75                             | mm       | UL 94          |

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CHEMISTRY THAT MATTERS™

| PROPERTIES                       | TYPICAL VALUES | UNITS | TEST METHODS |
|----------------------------------|----------------|-------|--------------|
| INJECTION MOLDING <sup>(3)</sup> |                |       |              |
| Drying Temperature               | 105 – 110      | °C    |              |
| Drying Time                      | 3 – 4          | Hrs   |              |
| Drying Time (Cumulative)         | 8              | Hrs   |              |
| Maximum Moisture Content         | 0.02           | %     |              |
| Melt Temperature                 | 275 – 305      | °C    |              |
| Nozzle Temperature               | 275 – 305      | °C    |              |
| Front - Zone 3 Temperature       | 265 – 305      | °C    |              |
| Middle - Zone 2 Temperature      | 255 – 300      | °C    |              |
| Rear - Zone 1 Temperature        | 245 – 295      | °C    |              |
| Mold Temperature                 | 70 – 100       | °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) 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.

(3) 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.

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