Noryl\* Resin PX0871



**Americas: COMMERCIAL** 

For automotive electrical applications. 236F (115C) HDT.

## Property

| TYPICAL PROPERTIES <sup>(1)</sup>             |         |           |                          |
|---|---------|-----------|--------------------------|
| MECHANICAL                                    | Value   | Unit      | Standard                 |
| Tensile Stress, yld, Type I, 50 mm/min        | 49      | MPa       | ASTM D 638               |
| Tensile Strain, yld, Type I, 50 mm/min        | 40      | %         | ASTM D 638               |
| Flexural Stress, yld, 2.6 mm/min, 100 mm span | 75      | MPa       | ASTM D 790               |
| Flexural Modulus, 2.6 mm/min, 100 mm span     | 2290    | MPa       | ASTM D 790               |
| ІМРАСТ  | Value   | Unit      | Standard                 |
| Izod Impact, notched, 23°C                    | 267     | J/m       | ASTM D 256               |
| Izod Impact, notched, -40°C                   | 133     | J/m       | ASTM D 256               |
| THERMAL                                       | Value   | Unit      | Standard                 |
| HDT, 1.82 MPa, 6.4 mm, unannealed             | 113     | °C        | ASTM D 648               |
| CTE, -40°C to 95°C, flow                      | 6.3E-05 | 1/°C      | ASTM E 831               |
| PHYSICAL                                      | Value   | Unit      | Standard                 |
| Specific Gravity                              | 1.06    | -         | ASTM D 792               |
| Water Absorption, 24 hours                    | 0.066   | %         | ASTM D 570               |
| Mold Shrinkage, flow, 3.2 mm                  | 0.6     | %         | SABIC Method             |
| ELECTRICAL                                    | Value   | Unit      | Standard                 |
| Volume Resistivity                            | 1.E+17  | Ohm-cm    | ASTM D 257               |
| Surface Resistivity                           | 1.E+17  | Ohm       | ASTM D 257               |
| Relative Permittivity, 50/60 Hz               | 2.69    | -         | ASTM D 150               |
| Relative Permittivity, 1 MHz                  | 2.68    | -         | ASTM D 150               |
| Dissipation Factor, 50/60 Hz                  | 0.0007  | -         | ASTM D 150               |
| Dissipation Factor, 100 kHz                   | 0.0024  | -         | ASTM D 150               |
| FLAME CHARACTERISTICS                         | Value   | Unit      | Standard                 |
| Oxygen Index (LOI)                            | 28      | %         | ASTM D 2863              |
|   |         | Source GM | D, last updated:01/05/20 |

## Processing

| Parameter                   |           |      |
|-----------------------------|-----------|------|
| Injection Molding           | Value     | Unit |
| 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  |  |  |
|                       |               |     |  |  |

Source GMD, last updated:01/05/2000

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

## PLEASE CHECK WITH YOUR (LOCAL SALES OFFICE) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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