

Product Information

TRIEX[®] 3025NB Polycarbonate Resin



TRIEX 3025NB GRADE

DESCRIPTION

- TRIEX is the registered trademark of polycarbonate resin manufactured by Samyang Corporation. TRIEX polycarbonate resins offer superior mechanical properties, good dimensional stability and high electrical performance, which allows it to be widely used for electrical, electronic, appliance, automotive and optical industries.
- TRIEX 3025NB is a specially designed polycarbonate resin grade which has a flame resistance in combination with superior physical properties

CHARACTERISTICS

- Good flame resistance
- Workable under a wide range of temperature (-100 °C ~ 135 °C)
- High electrical performance
- Good dimensional stability
- Low moisture absorbency

APPLICATIONS

- TRIEX 3025NB resin grade is used mainly in electronics and electric applications, including connector, lamps parts, light covers

TYPICAL DATA OF TRIEX 3025NB GRADE



| PROPERTY | UNIT | ASTM METHOD | TYPICAL DATA |
|--|----------------------------------|-------------|------------------------|
| PHYSICAL | | | |
| Specific Gravity | - | D792 | 1.20 |
| Water Absorption (24 hours at 23℃) | % | D570 | 0.15 |
| Melt Flow Rate (300℃, 1.2kg) | g/10min | D1238 | 20 |
| MECHANICAL | | | |
| Tensile Strength at yield | kg _f /cm ² | D638 | 700 |
| Tensile Elongation at break | % | D638 | 120 |
| Flexural Strength at yield | kg _f /cm ² | D790 | 1,000 |
| Flexural Modulus | kg _f /cm ² | D790 | 23,000 |
| Izod Impact Strength, notched, 23℃ (1/8") | kg _f ·cm/cm | D256 | 10 |
| Rockwell Hardness | R scale | D785 | 120 |
| THERMAL | | | |
| HDT, 4.6 kg _f /cm ² | ℃ | D648 | 146 |
| HDT, 18.6 kg _f /cm ² | ℃ | D648 | 135 |
| Coefficient of Linear Thermal Expansion | mm/mm/℃ | D696 | 5.6 x 10 ⁻⁵ |
| ELECTRICAL | | | |
| Volume Resistivity | Ω·cm | D257 | 4 x 10 ¹⁶ |
| Dielectric Strength | kV/mm | D149 | 30 |
| Dielectric Constant, 60Hz | - | D150 | 2.85 |
| Dissipation Factor, 60Hz | - | D150 | 0.0092 |
| ARC Resistance | sec | D495 | 120 |
| OTHERS | | | |
| UL-94 Flammability (0.51mm thickness) | - | (UL 94) | V-0 |
| Mold Shrinkage (3mm thickness) | % | D955 | 0.5~0.7 |

※ The figures listed in this table are typical values obtained under the standard test methods and may not be applicable for products that are under different application condition.

PROCESSING GUIDE FOR TRIEX 3025NB GRADE



- General processing conditions for TRIEX 3025NB are shown below. Drying prior to processing is essential to ensure desired appearance and property performance.

| SPECIFICATION | UNIT | CONDITIONS |
|-----------------------|------|-------------|
| Drying Temperature | °C | 120 |
| Drying Time | hr | 3 ~ 5 |
| Moisture Content, Max | % | 0.02 |
| Melt Temperature | °C | 290 ~ 320 |
| Nozzle Temperature | °C | 290 ~ 310 |
| Front Temperature | °C | 290 ~ 310 |
| Middle Temperature | °C | 280 ~ 300 |
| Rear Temperature | °C | 270 ~ 290 |
| Mold Temperature | °C | 80 ~ 100 |
| Back Pressure | MPa | 0.3 ~ 0.7 |
| Screw Speed | rpm | 40 ~ 70 |
| Vent Depth | mm | 0.02 ~ 0.08 |

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