

# TRIEX 3025G10 GRADE

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## 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 3025G10 is a 10% glass fiber reinforced polycarbonate resin which has a superior dimension stability in combination with good physical property

## CHARACTERISTICS

- High dimension stability
- Workable under a wide range of temperatures (-100°C ~ 135°C)
- High electrical performance
- Corrosion resistance

## APPLICATIONS

- TRIEX 3025G10 resin grade is used mainly in electronics and electric applications including connector, drill housing, and deflection yoke etc.

# TYPICAL DATA OF TRIEX 3025G10 GRADE

| PROPERTY                                   | UNIT                             | ASTM METHOD | TYPICAL DATA         |
|--------------------------------------------|----------------------------------|-------------|----------------------|
| <b>PHYSICAL</b>                            |                                  |             |                      |
| Specific Gravity                           | —                                | D792        | 1.25                 |
| Water Absorption (24 hours at 23°C)        | %                                | D570        | 0.13                 |
| Melt Flow Rate (300°C, 1.2kg)              | g/10min                          | D1238       | 10                   |
| <b>MECHANICAL</b>                          |                                  |             |                      |
| Tensile Strength at yield                  | kg <sub>f</sub> /cm <sup>2</sup> | D638        | 700                  |
| Tensile Elongation at break                | %                                | D638        | 5                    |
| Flexural Strength at yield                 | kg <sub>f</sub> /cm <sup>2</sup> | D790        | 1,050                |
| Flexural Modulus                           | kg <sub>f</sub> /cm <sup>2</sup> | D790        | 37,000               |
| Izod Impact Strength, notched, 23°C (1/8") | kg <sub>f</sub> ·cm/cm           | D256        | 11                   |
| Rockwell Hardness                          | R scale                          | D785        | 121                  |
| <b>THERMAL</b>                             |                                  |             |                      |
| HDT, 4.6 kg <sub>f</sub> /cm <sup>2</sup>  | °C                               | D648        | 150                  |
| HDT, 18.6 kg <sub>f</sub> /cm <sup>2</sup> | °C                               | D648        | 140                  |
| Coefficient of Linear Thermal Expansion    | mm/mm/°C                         | D696        | 3.3X10 <sup>-5</sup> |
| <b>ELECTRICAL</b>                          |                                  |             |                      |
| Volume Resistivity                         | Ω·cm                             | D257        | 4X10 <sup>16</sup>   |
| Dielectric Strength                        | kV/mm                            | D149        | 31                   |
| Dielectric Constant                        | —                                | D150        | 2.97                 |
| Dissipation Factor                         | —                                | D150        | 0.0096               |
| ARC Resistance                             | sec                              | D495        | 120                  |
| <b>OTHERS</b>                              |                                  |             |                      |
| UL-94 Flammability (1.5mm thickness)       | —                                | (UL 94)     | V-0                  |
| Mold Shrinkage (3mm thickness)             | %                                | D955        | 0.3~0.6              |

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 3025G10 GRADE

General processing conditions for TRIEX 3025G10 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   | 3~4        |
| Moisture Content, Max | %    |            |
| Melt Temperature      | °C   | 310 ~ 330  |
| Nozzle Temperature    | °C   | 300 ~ 320  |
| Front Temperature     | °C   | 300 ~ 320  |
| Middle Temperature    | °C   | 290 ~ 310  |
| Rear Temperature      | °C   | 280~ 300   |
| Mold Temperature      | °C   | 80 ~ 110   |
| Back Pressure         | MPa  | 350~700    |
| Screw Speed           | rpm  | 50~70      |
| Vent Depth            | mm   |            |

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