

# TRIBIT 1500G15 GRADE

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## DESCRIPTION

- TRIBIT is the registered trademark of polybutylene terephthalate resin manufactured by Samyang Corporation. TRIBIT polybutylene terephthalate resins offer excellent mechanical properties, electrical performance, chemical resistance and processability, which allows it to be widely used for automotive, electrical and electronic industries.
- TRIBIT 1500G15 is glass reinforced grade, which offers a unique combination of properties-high strength, stiffness, excellent dimensional stability, outstanding chemical resistance and heat resistance, and good electrical properties.

## CHARACTERISTICS

- High strength, rigidity
- Minimal moisture absorption
- Exceptional dimensional stability
- Resistance to a wide range of chemicals, oils, grease and solvents
- Excellent electrical properties
- Fast injection-molding cycles

## APPLICATIONS

- TRIBIT 1500G15 resin grade is used in a wide range of automotive, electrical and electronic applications.
  - \* Automotive distributor caps
  - \* Motor housings
  - \* Coil bobbins and coil cases
  - \* Appliance housings

# TYPICAL DATA OF TRIBIT 1500G15 GRADE

| PROPERTY                                   | UNIT                             | ASTM METHOD | TYPICAL DATA       |
|--------------------------------------------|----------------------------------|-------------|--------------------|
| <b>PHYSICAL</b>                            |                                  |             |                    |
| Specific Gravity                           | —                                | D792        | 1.50               |
| Water Absorption (24 hours at 23°C)        | %                                | D570        | 0.08               |
| Melt Flow Rate (250°C, 5kg)                | g/10min                          | D1238       | 83                 |
| <b>MECHANICAL</b>                          |                                  |             |                    |
| Tensile Strength at break                  | kg <sub>f</sub> /cm <sup>2</sup> | D638        | 900                |
| Tensile Elongation at break                | %                                | D638        | 4                  |
| Flexural Strength at yield                 | kg <sub>f</sub> /cm <sup>2</sup> | D790        | 1,400              |
| Flexural Modulus                           | kg <sub>f</sub> /cm <sup>2</sup> | D790        | 50,000             |
| Izod Impact Strength, notched, 23°C (1/8") | kg <sub>f</sub> ·cm/cm           | D256        | 5                  |
| Rockwell Hardness                          | R scale                          | D785        | 119                |
| <b>THERMAL</b>                             |                                  |             |                    |
| HDT, 4.6 kg <sub>f</sub> /cm <sup>2</sup>  | °C                               | D648        | 225                |
| HDT, 18.6 kg <sub>f</sub> /cm <sup>2</sup> | °C                               | D648        | 197                |
| Coefficient of Linear Thermal Expansion    | mm/mm/°C                         | D696        | 3X10 <sup>-5</sup> |
| <b>ELECTRICAL</b>                          |                                  |             |                    |
| Volume Resistivity                         | Ω·cm                             | D257        | 10 <sup>16</sup>   |
| Dielectric Strength                        | kV/mm                            | D149        | 21                 |
| Dielectric Constant                        | —                                | D150        | 3.2                |
| Dissipation Factor                         | —                                | D150        | 0.02               |
| ARC Resistance                             | Sec                              | D495        | 150                |
| <b>OTHERS</b>                              |                                  |             |                    |
| UL-94 Flammability (0.84mm thickness)      | —                                | (UL 94)     | HB                 |
| Mold Shrinkage (3mm thickness)             | %                                | D955        | 0.2~1.2            |

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 TRIBIT 1500G15 GRADE

General processing conditions for TRIBIT 1500G15 are shown below.  
Drying prior to processing is essential to ensure desired appearance and property performance.

| SPECIFICATION         | UNIT | CONDITIONS |
|-----------------------|------|------------|
| Drying Temperature    | ℃    | 120~130    |
| Drying Time           | hr   | 3~5        |
| Moisture Content, Max | %    | 0.02       |
| Melt Temperature      | ℃    | 250~270    |
| Nozzle Temperature    | ℃    | 245~265    |
| Front Temperature     | ℃    | 250~270    |
| Middle Temperature    | ℃    | 245~265    |
| Rear Temperature      | ℃    | 240~260    |
| Mold Temperature      | ℃    | 60~90      |
| Back Pressure         | %    | <70        |
| Screw Speed           | %    | <60        |
| Injection Pressure    | %    | <70        |
| Injection Speed       | %    | <50        |
| Hold Pressure         | %    | <50        |
| Injection Cushion     | mm   | 3~6        |

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