

**TRIBIT<sup>®</sup>**

***Polybutylene terephthalate Resin***



## **TRIBIT 1500G30 NA GRADE**

### **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 1500G30 NA 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 1500G30 NA 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

### **PROCESSING**

TRIBIT 1500G30 NA resin grade may be easily processed on the injection molding machines. Actual processing conditions will depend on the several factors such as machine size, mold designs, material residence time, and shot size etc. Thus, the optimum condition may be obtained after several trial and errors.



**DATA SHEET OF TRIBIT 1500G30 NA GRADE**

PROPERTY	UNIT	TYPICAL DATA	ASTM METHOD
<b>PHYSICAL</b>			
Specific Gravity	-	1.52	D-792
Water Absorption (24 hours at 23 °C)	%	0.07	D-570
Mold Shrinkage (3mm thickness)	%	0.2~1.2	D-955
<b>MECHANICAL</b>			
Tensile Strength at break	kg <sub>f</sub> /cm <sup>2</sup>	1,300	D-638
Tensile Elongation at break	%	5.0	D-638
Flexural Strength at yield	kg <sub>f</sub> /cm <sup>2</sup>	2,000	D-790
Flexural Modulus	kg <sub>f</sub> /cm <sup>2</sup>	90,000	D-790
Hardness, Rockwell R	-	120	D-785
Notched Izod Impact Strength, 23 °C (1/8")	kg <sub>f</sub> ·cm/cm	5.7	D-256
<b>THERMAL</b>			
HDT, 18.6 kg <sub>f</sub> /cm <sup>2</sup>	°C	215	D-648
Coefficient of Linear Thermal Expansion	mm/mm/°C	3.0 x 10 <sup>-5</sup>	D-696
<b>ELECTRICAL</b>			
Volume Resistivity	Ω·cm	10 <sup>16</sup>	D-257
Dielectric Strength, in air (1/8" thickness)	kV/mm	25	D-149
Dielectric Constant, 10 <sup>6</sup> Hz	-	3.2	D-150
Dissipation Factor, 10 <sup>6</sup> Hz	-	0.02	D-150
ARC Resistance	sec	150	D-495
<b>FLAME CHARACTERISTICS</b>			
UL-94 Flammability (1/32" thickness)	-	HB	(UL 94)

※ 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 CONDITION FOR TRIBIT 1500G30 NA

General processing conditions for TRIBIT 1500G30 NA are shown below. Drying prior to processing is essential to ensure desired appearance and property performance.

SPECIFICATION	UNIT	CONDITIONS
Drying Temperature	°C	120 ~ 130
Drying Time	hr	3 ~ 5
Moisture Content, Max	%	0.02
Melt Temperature	°C	250 ~ 270
Nozzle Temperature	°C	245 ~ 265
Front Temperature	°C	250 ~ 270
Middle Temperature	°C	245 ~ 265
Rear Temperature	°C	240 ~ 260
Mold Temperature	°C	60 ~ 90
Back Pressure	psi	0 ~ 50
Screw Speed	%	< 60
Injection Pressure	%	< 70
Injection Speed	%	< 50
Hold Pressure	%	< 50
Injection Cushion	mm	3 ~ 6

### HEAD OFFICE

SAMYANG CORPORATION CHEMICAL DIVISION  
#263 Yeonji-Dong, Jongro-Gu, Seoul, Korea  
Tel.82-2-740-7768 Fax.82-2-740-7700

### R&D CENTER

#63-2 Hwaam-Dong, Yusung-Gu, Daejeon, Korea  
Tel.82-42-865-8155 Fax.82-42-865-8099

### PLANT

#407 Palbok-Dong, Dukjin-Gu, Jeonju, Korea  
Tel.82-63-210-6680 Fax.82-63-210-6677



**SAMYANG Corp.**  
<http://www.samyang.com>