

TRIBIT 1503(S) 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.

CHARACTERISTICS

- High strength, rigidity, and toughness
- Low creep (even at elevated temperatures)
- 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 1503(S) resin grade is used in a wide range of automotive, electrical and electronic applications.

TYPICAL DATA OF TRIBIT 1503(S) GRADE

PROPERTY	UNIT	ASTM METHOD	TYPICAL DATA
PHYSICAL			
Specific Gravity	—	D792	1.3
Water Absorption (24 hours at 23°C)	%	D570	0.1
Melt Flow Rate (235°C, 2.16kg)	g/10min	D1238	11
MECHANICAL			
Tensile Strength at break	kg _f /cm ²	D638	470
Tensile Elongation at break	%	D638	110
Flexural Strength at yield	kg _f /cm ²	D790	670
Flexural Modulus	kg _f /cm ²	D790	21,000
Izod Impact Strength, notched, 23°C (1/8")	kg _f ·cm/cm	D256	9
Rockwell Hardness	R scale	D785	118
THERMAL			
HDT, 4.6 kg _f /cm ²	°C	D648	145
HDT, 18.6 kg _f /cm ²	°C	D648	54
Coefficient of Linear Thermal Expansion	mm/mm/°C	D696	9X10 ⁻⁵
ELECTRICAL			
Volume Resistivity	Ω·cm	D257	10 ¹⁶
Dielectric Strength	kV/mm	D149	17
Dielectric Constant	—	D150	3.2
Dissipation Factor	—	D150	0.02
ARC Resistance	Sec	D495	180
OTHERS			
UL-94 Flammability (0.75mm thickness)	—	(UL 94)	HB
Mold Shrinkage (3mm thickness)	%	D955	1.4~2.2

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 1503(S) GRADE

General processing conditions for TRIBIT 1503(S) are shown below. Drying prior to processing is essential to ensure desired appearance and property performance.

SPECIFICATION	UNIT	CONDITIONS
Drying Temperature	℃	120
Drying Time	hr	3~5
Moisture Content, Max	%	0.02
Melt Temperature	℃	250~260
Nozzle Temperature	℃	245~250
Front Temperature	℃	250~260
Middle Temperature	℃	245~255
Rear Temperature	℃	235~245
Mold Temperature	℃	60~80
Back Pressure	%	<70
Screw Speed	%	<60
Injection Pressure	%	<70
Injection Speed	%	<50
Hold Pressure	%	<50
Injection Cushion	mm	3~6