

## MTI ThermoStran® TPU-50G Long Glass Fiber Compound

Category : Polymer , Thermoplastic , Polyurethane, TP , Thermoplastic Polyurethane (TPUR), Glass Fiber Reinforced

### Material Notes:

ThermoStran® is custom designed long fiber thermoplastic compound (LFC) engineered to meet specific end use requirements. Continuous fibers are pultruded to yield pellets with fibers equivalent to the pellet length. Fiber / pellet length = 0.5 inches. Properties reported are dry as molded. Processing information: Mold Temperature: Higher mold temperatures are recommended for smoother surface appearance. Nozzle: Shortest length possible and 0.25 inch diameter or larger is recommended. Gates: Gates should be as large as possible and located to eliminate knit line and advantageously align fiber. Runners: Full round runners with 0.25 inch diameter and no sharp corners. Construction Material: Tool steels can be heat treated and polished to increase hardness and wear resistance. A-2 and D-2 steels can be hardened to Rockwell 60 C scale for longer life. Plating: Electroless nickel plating may offer additional wear protection. Information provided by MTI Thermoplastic Composites, Division of Montsinger Technologies, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_MTI-ThermoStran-TPU-50G-Long-Glass-Fiber-Compound.php](http://www.lookpolymers.com/polymer_MTI-ThermoStran-TPU-50G-Long-Glass-Fiber-Compound.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.63 g/cc	1.63 g/cc	
Filler Content	50 %	50 %	Long Glass Fiber

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	214 MPa	31000 psi	
Tensile Modulus	14.5 GPa	2100 ksi	
Flexural Strength	345 MPa	50000 psi	
Flexural Modulus	13.8 GPa	2000 ksi	
Izod Impact, Notched	5.07 J/cm	9.50 ft-lb/in	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	102 Â°C	215 Â°F	

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	216 Â°C	420 Â°F	
Middle Barrel Temperature	238 Â°C	460 Â°F	
Front Barrel Temperature	249 Â°C	480 Â°F	
Nozzle Temperature	249 Â°C	480 Â°F	

Melt Temperature Processing Properties	238 - 260 Â°C Metric	460 - 500 Â°F English	Comments
Mold Temperature	65.6 Â°C	150 Â°F	
Drying Temperature	82.2 Â°C	180 Â°F	
Dry Time	4 hour	4 hour	
Dew Point	-28.9 Â°C	-20.0 Â°F	
Injection Pressure	82.7 MPa	12000 psi	
Screw Speed	50 - 75 rpm	50 - 75 rpm	

Descriptive Properties	Value	Comments
Nozzle ID	0.25 Inches	
Screw Design	20:1 L/D	

## Contact Songhan Plastic Technology Co.,Ltd.

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