

## MTI ThermoStran® PPA-40C Long Carbon Fiber Compound

Category: Polymer, Thermoplastic, Polyphthalamide (PPA), Polyphthalamide (PPA), Carbon Fiber Filled

## **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. Property values are estimated. 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-PPA-40C-Long-Carbon-Fiber-Compound.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.32 g/cc	1.32 g/cc	
Filler Content	40 %	40 %	Long Carbon Fiber

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	290 MPa	42000 psi	
Tensile Modulus	44.8 GPa	6500 ksi	
Flexural Strength	441 MPa	64000 psi	
Flexural Modulus	31.7 GPa	4600 ksi	
Izod Impact, Notched	1.60 J/cm	3.00 ft-lb/in	

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	321 °C	610 °F	
Middle Barrel Temperature	329 °C	625 °F	
Front Barrel Temperature	338 °C	640 °F	
Nozzle Temperature	338 °C	640 °F	
Melt Temperature	332 - 349 °C	630 - 660 °F	
Mold Temperature	135 °C	275 °F	
Drying Temperature	98.9 °C	210 °F	



Processing Properties	Metric	Énglish	Comments
Dew Point	-28.9 °C	-20.0 °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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