

HiFill® PP GF10

Polypropylene

TP Composites, Inc.

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber Reinforcement, 10% Filler by Weight
Forms	• Pellets

Physical

	Nominal Value Unit	Test Method
Specific Gravity	0.978 g/cm ³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.70 %	ASTM D955
Water Absorption (24 hr)	0.010 %	ASTM D570

Mechanical

	Nominal Value Unit	Test Method
Tensile Strength (Yield)	41.4 MPa	ASTM D638
Tensile Elongation (Yield)	5.0 %	ASTM D638
Flexural Modulus	2760 MPa	ASTM D790
Flexural Strength (Yield)	55.2 MPa	ASTM D790

Impact

	Nominal Value Unit	Test Method
Notched Izod Impact (3.18 mm)	53 J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	350 J/m	ASTM D256

Hardness

	Nominal Value Unit	Test Method
Rockwell Hardness (R-Scale)	84	ASTM D785

Thermal

	Nominal Value Unit	Test Method
Deflection Temperature Under Load		ASTM D648
0.45 MPa, Unannealed	132 °C	
1.8 MPa, Unannealed	129 °C	
Melting Temperature	163 °C	
CLTE - Flow	0.000054 cm/cm/°C	ASTM D696

Electrical

	Nominal Value Unit	Test Method
Volume Resistivity	1.0E+16 ohm·cm	ASTM D257
Dielectric Strength ²	22 kV/mm	ASTM D149

Flammability

	Nominal Value Unit	Test Method
Flame Rating	HB	UL 94

Notes

¹ Typical properties: these are not to be construed as specifications.

² Method A (Short-Time)

