

Tufpet PBT G1030

Polybutylene Terephthalate

Mitsubishi Rayon America Inc.

General			
Filler / Reinforcement	• Glass Fiber Reinforcement, 30% Filler by Weight		
Features	• General Purpose • Good Chemical Resistance • Good Dimensional Stability • Good Electrical Properties • Good Moldability • High Gloss • High Heat Resistance • Low to No Water Absorption		
Forms	• Pellets		
Processing Method	• Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.53	g/cm³	ASTM D792
Molding Shrinkage - Flow	0.15 to 0.90	%	ASTM D955
Water Absorption (Saturation, 23°C)	0.40	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	127	MPa	ASTM D638
Tensile Elongation (Break)	2.0	%	ASTM D638
Flexural Modulus	9810	MPa	ASTM D790
Flexural Strength	186	MPa	ASTM D790
Coefficient of Friction			ASTM D1894
vs. Itself - Dynamic	0.20		
vs. Metal - Dynamic	0.15		
Taber Abrasion Resistance			ASTM D1044
1000 Cycles, 1000 g, CS-17 Wheel	50.0	mg	
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	78.5	J/m	ASTM D256
Unnotched Izod Impact	637	J/m	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	120		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	220	°C	
1.8 MPa, Unannealed	190	°C	
CLTE - Flow	0.000055	cm/cm/°C	ASTM D696
Specific Heat	1760	J/kg/°C	ASTM C351
Thermal Conductivity	0.34	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	3.5E+17	ohm·cm	ASTM D257
Dielectric Strength	22	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	3.50		ASTM D150
Dissipation Factor (1 MHz)	0.020		ASTM D150
Arc Resistance	139	sec	ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL			UL 94
0.760 mm	HB		
1.57 mm	HB		
3.18 mm	HB		



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UL 746	Nominal Value	Unit	Test Method
RTI Str			UL 746
0.760 mm	75.0	°C	
1.57 mm	75.0	°C	
3.18 mm	75.0	°C	
RTI Imp			UL 746
0.760 mm	75.0	°C	
1.57 mm	75.0	°C	
3.18 mm	75.0	°C	
RTI Elec			UL 746
0.760 mm	75.0	°C	
1.57 mm	75.0	°C	
3.18 mm	75.0	°C	
Comparative Tracking Index (CTI)	400	V	UL 746

Additional Information

Coefficient of Linear Thermal Expansion, ASTM D696: 3 to 8 E-5 cm/cm/°C

Injection	Nominal Value	Unit
Drying Temperature	140	°C
Drying Time	2.0	hr
Rear Temperature	230 to 303	°C
Middle Temperature	230 to 303	°C
Front Temperature	230 to 303	°C
Mold Temperature	40.0 to 100	°C
Injection Pressure	81.4	MPa
Screw Speed	80	rpm

