RTP 1107 TFE 10

Polyethylene Terephthalate

RTP Company

Message:

Warning: The status of this material is 'Commercial: Limited Issue'
The data for this material has not been recently verified.
Please contact RTP Company for current information prior to specifying this grade.
The coefficient of friction was tested on a Falex Model No.6 Wear Testing Machine at 50 FPM, 2000 PV, against C1018 steel of hardness 15-25 Rockwell C, 14-17 micro smoothness. This material offers an excellent balance of strength, heat resistance and toughness in a wear resistant composite.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 40% filler by weight		
Additive	PTFE lubricant (10%)		
Features	High strength Good wear resistance Heat resistance, high Good toughness Lubrication		
RoHS Compliance	Contact manufacturer		
Appearance	Black Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.70	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.10	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.040	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	120		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	14500	MPa	ASTM D638
Tensile Strength (Yield)	145	MPa	ASTM D638
Tensile Elongation (Break)	1.5	%	ASTM D638
Flexural Modulus	12400	MPa	ASTM D790
Flexural Strength (Yield)	221	MPa	ASTM D790
Compressive Strength	172	MPa	ASTM D695
Coefficient of Friction (With Metal-Dynamic)	0.15		ASTM D1894
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.18 mm)	96	J/m	ASTM D256

Unnotched Izod Impact (3.18 mm)	690	J/m	ASTM D4812
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	232	°C	ASTM D648
1.8 MPa, not annealed	227	°C	ASTM D648
CLTE - Flow	2.3E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.30	W/m/K	ASTM C177
Flammability	**Nominal Value**		**Test Method**
Flame Rating (1.59 mm, Values per RTP Company testing.)	HB		UL 94
Additional Information			
Molding Shrinkage, Linear-Flow, ASTM D955, 6.35mm: 2mm/m.			
Injection	**Nominal Value**	**Unit**	
Drying Temperature	121	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.010	%	
Suggested Max Regrind	20	%	
Rear Temperature	260 - 299	°C	
Middle Temperature	260 - 299	°C	
Front Temperature	260 - 299	°C	
Mold Temperature	82.2 - 121	°C	
Injection Pressure	68.9 - 103	MPa	
Back Pressure	0.172 - 0.517	MPa	
Screw Speed	60 - 90	rpm	
Clamp Tonnage	6.9 - 11	kN/cm^2	

Recommended distributors for this material

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