

# RTP 2102 TFE 10

Polyether Imide

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.  
-Preliminary Product Data per RTP Co.-

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 15% filler by weight		
Additive	PTFE lubricant (10%)		
Features	Lubrication		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.44	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.35	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.22	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	122		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	6890	MPa	ASTM D638
Tensile Strength	119	MPa	ASTM D638
Tensile Elongation (Break)	2.0	%	ASTM D638
Flexural Modulus	6210	MPa	ASTM D790
Flexural Strength	176	MPa	ASTM D790
Compressive Strength	124	MPa	ASTM D695
Coefficient of Friction (With Metal-Dynamic)	0.21		ASTM D1894
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	75	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	450	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	213	°C	ASTM D648
1.8 MPa, not annealed	204	°C	ASTM D648

CLTE - Flow	2.9E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.25	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	20	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	3.60		ASTM D150
Dissipation Factor (1 MHz)	5.0E-3		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm, RTP Tested)	V-0		UL 94
Additional Information			

Tensile Elongation, ASTM D-638: 2-3%Wear Factor, K, ASTM D-3702: 60E-10in<sup>3</sup>/min/ft/lb/hrCoefficient of Friction, Dynamic, ASTM D-3702: 0.21The wear factor and coefficient of friction were both 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.

Injection	Nominal Value	Unit
Drying Temperature	149	°C
Drying Time	4.0	hr
Suggested Max Moisture	0.020	%
Suggested Max Regrind	20	%
Rear Temperature	343 - 399	°C
Middle Temperature	343 - 399	°C
Front Temperature	343 - 399	°C
Mold Temperature	93.3 - 177	°C
Injection Pressure	103 - 138	MPa
Back Pressure	0.345 - 0.517	MPa
Clamp Tonnage	6.9 - 11	kN/cm <sup>2</sup>

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#### Recommended distributors for this material

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