

# RTP 301 TFE 5 UV

Polycarbonate

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.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 10% filler by weight		
Additive	PTFE lubricant (5%) UV stabilizer		
Features	Good UV resistance Lubrication		
RoHS Compliance	Contact manufacturer		
Appearance	Black Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.30	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.40	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.090	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	117		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3590	MPa	ASTM D638
Tensile Strength	65.5	MPa	ASTM D638
Tensile Elongation (Break)	7.0	%	ASTM D638
Flexural Modulus	3310	MPa	ASTM D790
Flexural Strength	103	MPa	ASTM D790
Compressive Strength	72.4	MPa	ASTM D695
Coefficient of Friction (With Metal-Dynamic)	0.25		ASTM D1894
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	140	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	1600	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method

Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	143	°C	ASTM D648
1.8 MPa, not annealed	138	°C	ASTM D648
CLTE - Flow	3.6E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.20	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	18	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	3.30		ASTM D150
Dissipation Factor (1 MHz)	0.010		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.18 mm)	V-1		UL 94
Additional Information			

Mold Shrinkage, Linear-Flow, ASTM D-955, 0.25in.: 6mil/in.Wear Factor, K, ASTM D-3702: 60E-10in<sup>3</sup>/min/ft/lb/hrCoefficient of Friction, Dynamic, ASTM D-3702: 0.25The wear factor and dynamic 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	121	°C
Drying Time	4.0	hr
Suggested Max Moisture	0.020	%
Suggested Max Regrind	20	%
Rear Temperature	288 - 343	°C
Middle Temperature	288 - 343	°C
Front Temperature	288 - 343	°C
Mold Temperature	65.6 - 121	°C
Injection Pressure	103 - 138	MPa

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### Recommended distributors for this material

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