

RTP 300 TFE 15 SI

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.
RTP 300 TFE 15 SI is an unreinforced PTFE/silicone lubricated polycarbonate. It exhibits low wear and low frictional characteristics while maintaining the inherent toughness of the polycarbonate.

General Information			
Additive	PTFE lubricant (15%)		
	Silicone lubricant		
Features	Good dimensional stability		
	Low friction coefficient		
	Good wear resistance		
	Lubrication		
	Self-lubricating		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.28	g/cm ³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.60	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.10	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	116		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1930	MPa	ASTM D638
Tensile Strength (Yield)	46.9	MPa	ASTM D638
Tensile Elongation (Break)	8.5	%	ASTM D638
Flexural Modulus	2070	MPa	ASTM D790
Flexural Strength (Yield)	79.3	MPa	ASTM D790
Compressive Strength	68.9	MPa	ASTM D695
Coefficient of Friction (With Metal-Dynamic)	0.10		ASTM D1894
Impact	Nominal Value	Unit	Test Method

Notched Izod Impact (3.18 mm)	210	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	1900	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	138	°C	ASTM D648
1.8 MPa, not annealed	135	°C	ASTM D648
CLTE - Flow	6.8E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.19	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	17	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	3.10		ASTM D150
Dissipation Factor (1 MHz)	0.010		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.18 mm, RTP Tested)	V-0		UL 94

Additional Information

Molding shrinkage, Linear-flow, ASTM D955, 0.25in: 8mil/inThe 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.

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	68.9 - 103	MPa
Back Pressure	0.172 - 0.345	MPa
Screw Speed	50 - 90	rpm
Clamp Tonnage	6.9 - 11	kN/cm ²

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