# RTP 1381 P-1 TFE 20

## Polyphenylene Sulfide

### 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	Carbon fiber reinforced material, 10% filler by weight				
Additive	PTFE lubricant (20%)				
Features	Lubrication				
RoHS Compliance	Contact manufacturer				
Appearance	Black				
Forms	Particle				
Processing Method	Injection molding				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.55	g/cm³	ASTM D792		
Molding Shrinkage - Flow (3.18 mm)	0.19	%	ASTM D955		
Water Absorption (23°C, 24 hr)	0.020	%	ASTM D570		
Hardness	Nominal Value	Unit	Test Method		
Rockwell Hardness (R-Scale)	122		ASTM D785		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Modulus	11000	МРа	ASTM D638		
Tensile Strength	138	МРа	ASTM D638		
Tensile Elongation (Break)	0.50	%	ASTM D638		
Flexural Modulus	8960	МРа	ASTM D790		
Flexural Strength	172	МРа	ASTM D790		
Compressive Strength	138	MPa	ASTM D695		
Coefficient of Friction (With Metal-Dynamic)	0.17		ASTM D1894		
Impact	Nominal Value	Unit	Test Method		
Notched Izod Impact (3.18 mm)	37	J/m	ASTM D256		
Unnotched Izod Impact (3.18 mm)	320	J/m	ASTM D4812		
Thermal	Nominal Value	Unit	Test Method		
Deflection Temperature Under Load			ASTM D648		
0.45 MPa, not annealed	260	°C	ASTM D648		
1.8 MPa, not annealed	254	°C	ASTM D648		
CLTE - Flow	2.3E-5	cm/cm/°C	ASTM D696		
Thermal Conductivity	0.33	W/m/K	ASTM C177		

Flammability	Nominal Value	Test Method
Flame Rating	V-0	UL 94

#### Additional Information

Mold Shrinkage, Linear-Flow, ASTM D-955, 0.25in.: 2.1mil/in.Tensile Elongation, ASTM D-638: 0-1%Wear Factor, K, ASTM D-3702: 80E-10in³/min/ft/lb/hrCoefficient of Friction, Dynamic, ASTM D-3702: 0.17The 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	6.0	hr	
Suggested Max Moisture	0.040	%	
Suggested Max Regrind	20	%	
Rear Temperature	302 - 343	°C	
Middle Temperature	302 - 343	°C	
Front Temperature	302 - 343	°C	
Mold Temperature	135 - 177	°C	
Injection Pressure	103 - 138	MPa	
Clamp Tonnage	6.9 - 11	kN/cm²	

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#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533 Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

