

# RTP 205 TFE 20 HS

Polyamide 66

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.  
This series of wear resistant materials uses PTFE as the primary lubricant.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Additive	PTFE lubricant (20%) heat stabilizer		
Features	Good wear resistance Thermal Stability Lubrication		
RoHS Compliance	Contact manufacturer		
Appearance	Black Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.54	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.30	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.45	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	117		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	11000	MPa	ASTM D638
Tensile Strength	159	MPa	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	10300	MPa	ASTM D790
Flexural Strength	221	MPa	ASTM D790
Compressive Strength	121	MPa	ASTM D695
Coefficient of Friction (With Metal-Dynamic)	0.23		ASTM D1894
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	110	J/m	ASTM D256

Unnotched Izod Impact (3.18 mm)	1100	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	243	°C	ASTM D648
1.8 MPa, not annealed	238	°C	ASTM D648
CLTE - Flow	3.6E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.52	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength	20	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	3.80		ASTM D150
Dissipation Factor (1 MHz)	0.015		ASTM D150
Arc Resistance	120	sec	ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm)	HB		UL 94

#### Additional Information

Mold Shrinkage, Linear-Flow, ASTM D-955, 0.25in.: 5mil/in.Wear Factor, K, ASTM D-3702: 15E-10in<sup>3</sup>/min/ft/lb/hrCoefficient of Friction, Dynamic, ASTM D-3702: 0.23The 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	79.4	°C
Drying Time	4.0	hr
Suggested Max Moisture	0.20	%
Suggested Max Regrind	20	%
Rear Temperature	274 - 288	°C
Middle Temperature	274 - 288	°C
Front Temperature	274 - 288	°C
Mold Temperature	65.6 - 93.3	°C
Injection Pressure	82.7 - 138	MPa

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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



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