

# RTP 200 AR 10 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.  
The RTP 200 AR series are aramid fiber reinforced nylon 6/6 composites designed for exceptional wear and abrasion resistance along with isotropic properties.

General Information			
Filler / Reinforcement	Aramid fiber, 10% filler by weight		
Additive	heat stabilizer		
Features	Thermal Stability		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.16	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	1.0	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.90	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	120		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	4140	MPa	ASTM D638
Tensile Strength	86.2	MPa	ASTM D638
Tensile Elongation (Break)	7.0	%	ASTM D638
Flexural Modulus	3450	MPa	ASTM D790
Flexural Strength	110	MPa	ASTM D790
Coefficient of Friction (With Metal-Dynamic)	0.20		ASTM D1894
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	53	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	480	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	238	°C	ASTM D648
1.8 MPa, not annealed	138	°C	ASTM D648
Linear thermal expansion coefficient			ASTM D696

Flow	4.0E-5	cm/cm/°C	ASTM D696
Lateral	6.3E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.33	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
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.: 12mil/in. Wear Factor, K, ASTM D-3702: 60E-10in<sup>3</sup>/min/ft/lb/hr Coefficient of Friction, Dynamic, ASTM D-3702: 0.20 The 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 - 107	°C
Injection Pressure	82.7 - 124	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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