

# RTP 203E

Polyamide

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 200 E Series is based on amorphous nylon. Because it is amorphous it has better dimensional stability than the high crystalline nylons yet retains the desirable properties of the nylon family.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 20% filler by weight		
Features	Good dimensional stability		
	Crystallization		
	amorphous		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.32	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.30	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.25	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	122		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	6890	MPa	ASTM D638
Tensile Strength (Yield)	138	MPa	ASTM D638
Tensile Elongation (Break)	4.5	%	ASTM D638
Flexural Modulus	6210	MPa	ASTM D790
Flexural Strength (Yield)	186	MPa	ASTM D790
Compressive Strength	138	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	64	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	430	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	141	°C	ASTM D648
CLTE - Flow	4.3E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.43	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)	3.70		ASTM D150
Dissipation Factor (1 MHz)	0.20		ASTM D150
Arc Resistance	100	sec	ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm, RTP Tested)	HB		UL 94
Additional Information			
Molding shrinkage, Linear-flow, ASTM D955, 0.25in: 5mil/in			
Injection	Nominal Value	Unit	
Suggested Max Moisture	0.10	%	
Suggested Max Regrind	20	%	
Rear Temperature	271 - 299	°C	
Middle Temperature	271 - 299	°C	
Front Temperature	271 - 299	°C	
Mold Temperature	65.6 - 98.9	°C	
Injection Pressure	103 - 124	MPa	
Back Pressure	0.172 - 0.345	MPa	
Screw Speed	50 - 90	rpm	
Clamp Tonnage	6.9 - 11	kN/cm <sup>2</sup>	

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#### Recommended distributors for this material

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