

# RTP 283E

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	Carbon fiber reinforced material, 20% filler by weight		
Features	Good dimensional stability  amorphous		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.26	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.10	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.20	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	122		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	13800	MPa	ASTM D638
Tensile Strength	193	MPa	ASTM D638
Tensile Elongation (Break)	2.5	%	ASTM D638
Flexural Modulus	12400	MPa	ASTM D790
Flexural Strength	276	MPa	ASTM D790
Compressive Strength	138	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	80	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	640	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	149	°C	ASTM D648
1.8 MPa, not annealed	143	°C	ASTM D648
CLTE - Flow	1.8E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.72	W/m/K	ASTM C177

Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	10	ohms · cm	ASTM D257
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: 2mil/in			
Injection	Nominal Value	Unit	
Drying Temperature	79.4	°C	
Drying Time	4.0	hr	
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	

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#### Recommended distributors for this material

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