

# RTP 281D

Polyamide 612

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.  
Nylon 6/12 has better dimensional stability, toughness and lower water absorption than most other nylons. The addition of carbon fiber adds high strength, stiffness and conductivity.

General Information			
Filler / Reinforcement	Carbon fiber reinforced material, 10% filler by weight		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.10	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.30	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.20	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	120		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	8270	MPa	ASTM D638
Tensile Strength	124	MPa	ASTM D638
Tensile Elongation (Break)	4.0	%	ASTM D638
Flexural Modulus	6890	MPa	ASTM D790
Flexural Strength	193	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	53	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	216	°C	ASTM D648
1.8 MPa, not annealed	213	°C	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+5	ohms · cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm)	HB		UL 94

#### Additional Information

The value listed as Flammability, UL 94, was tested in accordance with RTP test standards.Mold Shrinkage, Linear-Flow, ASTM D-955, 0.25in: 4mil/in.

Injection	Nominal Value	Unit
Rear Temperature	254 - 282	°C
Middle Temperature	254 - 282	°C
Front Temperature	254 - 282	°C
Mold Temperature	60.0 - 93.3	°C
Injection Pressure	68.9 - 103	MPa

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#### Recommended distributors for this material

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