

RTP 181 HI

Polypropylene Copolymer

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 181 HI is a high impact polypropylene with carbon fiber added for electrical conductivity. This product has excellent static dissipation characteristics and is available in a range of colors. Injection molding, extrusion and blow molding grades are available.

General Information			
Filler / Reinforcement	Carbon fiber reinforced material, 10% filler by weight		
Features	Conductivity		
	Antistatic property		
	Impact resistance, good		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
	Available colors		
	Natural color		
Forms	Particle		
Processing Method	Blow molding		
	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.948	g/cm ³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.20	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.010	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3450	MPa	ASTM D638
Tensile Strength (Yield)	22.0	MPa	ASTM D638
Tensile Elongation (Break)	7.5	%	ASTM D638
Flexural Modulus	2760	MPa	ASTM D790
Flexural Strength (Yield)	33.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	110	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	132	°C	ASTM D648
1.8 MPa, not annealed	104	°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, Values per RTP Company testing.)	HB		UL 94
Additional Information			
Molding Shrinkage, Linear-Flow, ASTM D955, 6.35mm: 3mm/m.			
Injection	Nominal Value	Unit	
Drying Temperature	82.2	°C	
Drying Time	2.0	hr	
Suggested Max Regrind	20	%	
Rear Temperature	218 - 274	°C	
Middle Temperature	218 - 274	°C	
Front Temperature	218 - 274	°C	
Mold Temperature	32.0 - 66.0	°C	
Injection Pressure	68.9 - 103	MPa	
Back Pressure	0.345	MPa	
Screw Speed	90 - 150	rpm	
Clamp Tonnage	6.9 - 11	kN/cm ²	

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Recommended distributors for this material

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