RTP 781

High Density Polyethylene

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 781 is a high-density polyethylene with carbon fiber added for electrical conductivity. This product has excellent static dissipation characteristics and may be pigmented into 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		
Agency Ratings	MIL B-81705B		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
	Available colors		
	Natural color		
Forms	Particle		
Processing Method	Extrusion		
	Injection blowing molding		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.03	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.20	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.050	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	5520	MPa	ASTM D638
Tensile Strength	34.5	MPa	ASTM D638
Tensile Elongation (Break)	4.5	%	ASTM D638
Flexural Modulus	3100	MPa	ASTM D790
Flexural Strength	41.4	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (6.35 mm)	80	J/m	ASTM D256
Unnotched Izod Impact (6.35 mm)	210	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648

0.45 MPa, not annealed	116	°C	ASTM D648
1.8 MPa, not annealed	98.9	°C	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+4	ohms·cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm)	НВ		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: 3mil/inTensile Elongation, ASTM D-638: 4-5% Static Decay, FTMS-4046.1, NFPA: PassStatic Decay, FTMS-4046.1, Mil B-81705C: Pass

Injection	Nominal Value	Unit
Drying Temperature	79.4	°C
Drying Time	2.0	hr
Suggested Max Regrind	20	%
Rear Temperature	177 - 288	°C
Middle Temperature	177 - 288	°C
Front Temperature	177 - 288	°C
Mold Temperature	23.9 - 51.7	°C
Injection Pressure	68.9 - 103	MPa
Back Pressure	0.345	MPa

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Recommended distributors for this material

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