RTP ESD A 180

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.
ESD 180 Series is a polypropylene high impact with carbon fibers added for electrical conductivity. This product has excellent static dissipation characteristics, is non-sloughing and is available in a range of colors. ESD A 180 is static dissipative, E

General Information			
Filler / Reinforcement	Carbon fiber reinforced material		
Features	Electrostatic discharge protection Antistatic property		
Agency Ratings	MIL B-81705C		
RoHS Compliance	Contact manufacturer		
Appearance	Black Available colors Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	0.938	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.30 - 0.40	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.010	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	4270	MPa	ASTM D638
Tensile Strength	19.3	MPa	ASTM D638
Tensile Elongation (Break)	10	%	ASTM D638
Flexural Modulus	3100	MPa	ASTM D790
Flexural Strength	33.1	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.18 mm)	210	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	590	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
CLTE - Flow	4.3E-5	cm/cm/°C	ASTM D696

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+6	ohms	ASTM D257
Volume Resistivity	1.0E+3	ohms·cm	ASTM D257
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.59 mm, RTP Tested)	HB		UL 94
Additional Information			
Tensile Elongation, ASTM D638: 10+%Volume Resistivity, ASTM D257: 10E3 -10E9 ohm-cmSurface Resistivity, ASTM D257: 10E6 -10E12 ohm/sqStatic Decay, FTMS-4046.1, Mil B-81705C: <2.0 seconds			
Injection	**Nominal Value**	**Unit**	
Rear Temperature	218 - 274	°C	
Middle Temperature	218 - 274	°C	
Front Temperature	218 - 274	°C	
Mold Temperature	32.2 - 46.1	°C	
Injection Pressure	68.9 - 103	MPa	

Recommended distributors for this material

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