

# RTP ESD A 102

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 102 Series is a glass fiber reinforced polypropylene which offers the highest strength and stiffness of any RTP Company's ESD 100 products. ESD A 102 is static dissipative, ESD C 102 is conductive.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 15% filler by weight		
Additive	Carbon black		
Features	Rigid, good		
	High strength		
	Electrostatic discharge protection		
	Antistatic property		
Agency Ratings	MIL B-81705C		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.12	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow	0.30 - 0.50	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.020	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	4480	MPa	ASTM D638
Tensile Strength			ASTM D638
Yield	26.2	MPa	ASTM D638
--	27.6	MPa	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	3100	MPa	ASTM D790
Flexural Strength			ASTM D790
--	48.3	MPa	ASTM D790
Yield	40.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	80	J/m	ASTM D256

Unnotched Izod Impact (3.18 mm)	210	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	104	°C	ASTM D648
1.8 MPa, not annealed	87.8	°C	ASTM D648
CLTE - Flow	4.0E-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: 3-5%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 - 65.6	°C
Injection Pressure	68.9 - 103	MPa

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#### Recommended distributors for this material

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