

# RTP 687 FR HEC

Acrylonitrile Butadiene Styrene

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.

General Information			
Filler / Reinforcement	Nickel-plated carbon fiber, 40% filler by weight		
Features	Electromagnetic shielding (EMI)		
	Electrostatic discharge protection		
	Radio frequency shielding (RFI)		
	Flame retardancy		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.51	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow			ASTM D955
3.18mm, injection molding	0.10	%	ASTM D955
6.35mm, injection molding	0.20	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.12	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	110		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (Injection Molded)	11700	MPa	ASTM D638
Tensile Strength	55.0	MPa	ASTM D638
Tensile Elongation (Yield, Injection Molded)	1.0	%	ASTM D638
Flexural Modulus (Injection Molded)	11000	MPa	ASTM D790
Flexural Strength (Injection Molded)	83.0	MPa	ASTM D790
Compressive Strength	59.0	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm, Injection Molded)	53	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, unannealed, injection molded	118	°C	ASTM D648
1.8 MPa, unannealed, injection molded	116	°C	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0	ohms·cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm)	V-0		UL 94
Additional Information			

The value listed as Flammability, UL 94, was tested in accordance with RTP Company methods.

Injection	Nominal Value	Unit
Rear Temperature	199 - 232	°C
Middle Temperature	199 - 232	°C
Front Temperature	199 - 232	°C
Mold Temperature	63.0 - 85.0	°C
Injection Pressure	69.0 - 103	MPa

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#### Recommended distributors for this material

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