

# RTP 2583C HEC FR

Polycarbonate + ABS

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 2583 C HEC FR Series materials are polycarbonate/ABS alloys with nickel-coated carbon fiber added for electrical conductivity and EMI/RFI shielding. These materials meet the flammability requirements of UL94 V-0 and are available in a range of colors.

General Information			
Filler / Reinforcement	Nickel plated carbon fiber, 20% filler by weight		
Additive	Flame retardancy		
Features	Conductivity		
	Electromagnetic shielding (EMI)		
	Antistatic property		
	Radio frequency shielding (RFI)		
	Flame retardancy		
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	1.41	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.15	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.10	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	12400	MPa	ASTM D638
Tensile Strength	117	MPa	ASTM D638
Tensile Elongation (Break)	1.5	%	ASTM D638
Flexural Modulus	10300	MPa	ASTM D790
Flexural Strength	165	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	53	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	270	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method

Deflection Temperature Under Load (1.8 MPa, Unannealed)	113	°C	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+3	ohms	ASTM D257
Volume Resistivity	1.0	ohms·cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm, RTP Tested)	V-0		UL 94

#### Additional Information

Static Decay, Mil B-81705C, FTMS-4046.1: <2.0 secondsShielding Effectiveness: 30+ dBThe Shielding Effectiveness testing was performed on edge-gated 6"x6"x0.090-0.120" panels, using NIST test cell per NBS Technical Note 1095.

Injection	Nominal Value	Unit
Drying Temperature	98.9	°C
Drying Time	4.0	hr
Suggested Max Moisture	0.020	%
Suggested Max Regrind	20	%
Rear Temperature	232 - 288	°C
Middle Temperature	232 - 288	°C
Front Temperature	232 - 288	°C
Mold Temperature	71.1 - 98.9	°C
Injection Pressure	68.9 - 103	MPa
Back Pressure	0.345	MPa
Clamp Tonnage	6.9 - 11	kN/cm <sup>2</sup>

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#### Recommended distributors for this material

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