RTP 209F

Polyamide 12

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 209F is a nylon 12 reinforced with glass fiber. This material exhibits low water absorption, good dimensional stability, and improved low temperature resistance compared to most other nylons.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 50% filler by weight		
Features	Good dimensional stability Low temperature impact resistance Low or no water absorption		
RoHS Compliance	Contact manufacturer		
Appearance	Black Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.45	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.20	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.050	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	115		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	8960	MPa	ASTM D638
Tensile Strength	148	MPa	ASTM D638
Tensile Elongation (Break)	4.5	%	ASTM D638
Flexural Modulus	8620	MPa	ASTM D790
Flexural Strength	214	MPa	ASTM D790
Compressive Strength	110	MPa	ASTM D695
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (6.35 mm)	230	J/m	ASTM D256
Unnotched Izod Impact (6.35 mm)	1100	J/m	ASTM D4812
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	182	°C	ASTM D648

1.8 MPa, not annealed	177	°C	ASTM D648
CLTE - Flow	3.8E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.50	W/m/K	ASTM C177
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength	20	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	3.80		ASTM D150
Dissipation Factor (1 MHz)	0.016		ASTM D150
Arc Resistance	120	sec	ASTM D495
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.59 mm, RTP Tested)	HB		UL 94
Additional Information			
Mold Shrinkage, Linear-Flow, ASTM D-955, 0.25in.: 4mil/in.Flammability, ASTM D-635: B in/min.			
Injection	**Nominal Value**	**Unit**	
Drying Temperature	79.4	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.10	%	
Suggested Max Regrind	20	%	
Rear Temperature	221 - 254	°C	
Middle Temperature	221 - 254	°C	
Front Temperature	221 - 254	°C	
Mold Temperature	37.8 - 65.6	°C	
Injection Pressure	68.9 - 103	MPa	

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Recommended distributors for this material

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