RTP 1003 Z

Polybutylene Terephthalate

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 1000 Z Series materials have an outstanding balance of properties including good strengths, electrical properties, thermal properties and low water absorption. This can be a very cost effective series of materials formulated with FDA compliant ingredients.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 20% filler by weight		
Features	High strength Low or no water absorption		
Agency Ratings	FDA not rated		
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)	0.40	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.070	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	117		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	6890	MPa	ASTM D638
Tensile Strength	107	MPa	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	5520	MPa	ASTM D790
Flexural Strength	155	MPa	ASTM D790
Compressive Strength	107	MPa	ASTM D695
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.18 mm)	53	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	430	J/m	ASTM D4812
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	210	°C	ASTM D648

1.8 MPa, not annealed	204	°C	ASTM D648
CLTE - Flow	3.6E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.17	W/m/K	ASTM C177
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	20	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	3.70		ASTM D150
Dissipation Factor (1 MHz)	0.014		ASTM D150
Arc Resistance	140	sec	ASTM D495
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.59 mm)	HB		UL 94
Additional Information			
The value listed as Flammability, UL 94, was tested in accordance with RTP test standards.Mold Shrinkage, Linear-Flow, ASTM D-955, 0.25in.: 5mil/in.			
Injection	**Nominal Value**	**Unit**	
Drying Temperature	121	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.030	%	
Suggested Max Regrind	20	%	
Rear Temperature	232 - 271	°C	
Middle Temperature	232 - 271	°C	
Front Temperature	232 - 271	°C	
Mold Temperature	37.8 - 121	°C	
Injection Pressure	68.9 - 103	MPa	

Recommended distributors for this material

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