RTP 1001 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, 10% 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	1.38	g/cm³	ASTM D792	
Molding Shrinkage - Flow (3.18 mm)	0.90	%	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	4830	MPa	ASTM D638	
Tensile Strength	72.4	MPa	ASTM D638	
Tensile Elongation (Break)	3.5	%	ASTM D638	
Flexural Modulus	4140	MPa	ASTM D790	
Flexural Strength	124	MPa	ASTM D790	
Compressive Strength	68.9	MPa	ASTM D695	
Impact	Nominal Value	Unit	Test Method	
Notched Izod Impact (3.18 mm)	59	J/m	ASTM D256	
Unnotched Izod Impact (3.18 mm)	480	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	171	°C	ASTM D648
CLTE - Flow	4.9E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.16	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)	3.40		ASTM D150
Dissipation Factor (1 MHz)	0.012		ASTM D150
Arc Resistance	150	sec	ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm)	НВ		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.: 12mil/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	

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