

# RTP 1200.5-90A

Thermoplastic Polyurethane Elastomer (Polyester)

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.  
Glass fiber reinforced polyurethane elastomers offer greater dimensional stability than the base resin. They offer outstanding impact strength and still remain their elastomeric characteristics.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 5.0% filler by weight		
Features	Low Temperature Flexibility		
	Good wear resistance		
	Good chemical resistance		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.23	g/cm <sup>3</sup>	ASTM D792
Water Absorption (23°C, 24 hr)	0.34	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	90		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	4960	MPa	ASTM D638
Tensile Strength (Yield)	14.5	MPa	ASTM D638
Tensile Elongation (Break)	10	%	ASTM D638
Flexural Modulus	276	MPa	ASTM D790
Flexural Strength (Yield)	14.0	MPa	ASTM D790
Compressive Strength	8.27	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	640	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	1300	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	104	°C	ASTM D648
1.8 MPa, not annealed	54.4	°C	ASTM D648

CLTE - Flow	1.6E-6	cm/cm/°C	ASTM D696
Thermal Conductivity	0.23	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+11	ohms·cm	ASTM D257
Dielectric Strength	14	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	4.80		ASTM D150
Dissipation Factor (1 MHz)	0.014		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm, Values per RTP Company testing.)	HB		UL 94
Additional Information			
Molding Shrinkage, Linear-Flow, ASTM D955, 6.35mm: 2mm/m.			
Injection	Nominal Value	Unit	
Rear Temperature	182 - 210	°C	
Middle Temperature	182 - 210	°C	
Front Temperature	182 - 210	°C	
Mold Temperature	16.0 - 66.0	°C	
Injection Pressure	68.9 - 103	MPa	

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#### Recommended distributors for this material

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