

# RTP 103 AV (20% FOAMED)

Polypropylene

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 103 AV is a glass fiber reinforced polypropylene specially formulated to offer optimum physical properties for structural foam applications. The correct balance of nucleating agents and accelerators results in optimum cell structure and moldability. This material can be used with either nitrogen or chemical blowing agents.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 20% filler by weight		
Features	Foamable property		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.05	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.40	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.010	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	90		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3450	MPa	ASTM D638
Tensile Strength			ASTM D638
Yield	30.3	MPa	ASTM D638
--	45.0	MPa	ASTM D638
Tensile Elongation (Break)	2.5	%	ASTM D638
Flexural Modulus	4130	MPa	ASTM D790
Flexural Strength			ASTM D790
--	69.0	MPa	ASTM D790
Yield	55.2	MPa	ASTM D790
Compressive Strength	48.0	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	43	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	210	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648

0.45 MPa, not annealed	149	°C	ASTM D648
1.8 MPa, not annealed	138	°C	ASTM D648
CLTE - Flow	4.5E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.22	W/m/K	ASTM C177
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	20	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	2.80		ASTM D150
Dissipation Factor (1 MHz)	1.0E-3		ASTM D150
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating (1.59 mm, Vaules per RTP Company testing.)	HB		UL 94
<b>Additional Information</b>			
Molding Shrinkage, Linear-Flow, ASTM D955, 6.35mm: 5mm/m.			
<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>	
Drying Temperature	82.2	°C	
Drying Time	2.0	hr	
Suggested Max Regrind	20	%	
Rear Temperature	204 - 260	°C	
Middle Temperature	204 - 260	°C	
Front Temperature	204 - 260	°C	
Mold Temperature	16.0 - 66.0	°C	
Injection Pressure	14.0 - 21.0	MPa	
Back Pressure	0.345	MPa	
Screw Speed	50 - 90	rpm	
Clamp Tonnage	6.9 - 11	kN/cm <sup>2</sup>	

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#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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