RTP 2100 AR 15

Polyether Imide

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 2100 AR Series are aramid fiber reinforced polyetherimide composites designed for exceptional wear and abrasion resistance along with isotropic properties at elevated temperatures.

General Information					
Filler / Reinforcement	Aramid fiber, 15% filler by weight				
Features	Good wear resistance				
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RoHS Compliance	Contact manufacturer				
Appearance	Black				
	Natural color				
Forms	Particle				
Processing Method	Injection molding				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.30	g/cm³	ASTM D792		
Molding Shrinkage - Flow	0.40	%	ASTM D955		
Water Absorption (23°C, 24 hr)	0.20	%	ASTM D570		
Hardness	Nominal Value	Unit	Test Method		
Rockwell Hardness (R-Scale)	125		ASTM D785		
Mechanical	Nominal Value	Unit	Test Method		
Tensile Modulus	4830	MPa	ASTM D638		
Tensile Strength			ASTM D638		
Yield	100	MPa	ASTM D638		
	100	MPa	ASTM D638		
Tensile Elongation (Break)	4.0	%	ASTM D638		
Flexural Modulus	4140	MPa	ASTM D790		
Flexural Strength			ASTM D790		
	145	MPa	ASTM D790		
Yield	145	MPa	ASTM D790		
Coefficient of Friction (With Metal-Dynamic)	0.10		ASTM D1894		
Impact	Nominal Value	Unit	Test Method		
Notched Izod Impact (3.18 mm)	53	J/m	ASTM D256		
Unnotched Izod Impact (3.18 mm)	370	J/m	ASTM D4812		

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	213	°C	ASTM D648
1.8 MPa, not annealed	204	°C	ASTM D648
CLTE - Flow	2.5E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.25	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm, RTP Tested)	V-0		UL 94
Additional Information			

Additional Information

Molding Shrinkage, ASTM D955, 0.25in: 4 mil/inWear Factor, K, ASTM D-3702: 100E-10in³/min/ft/lb/hrThe coefficient of friction was tested on a Falex Model No.6 Wear Testing Machine at 50 FPM, 2000 PV, against C1018 steel of hardness 15-25 Rockwell C, 14-17 micro smoothness.

Injection	Nominal Value	Unit
Rear Temperature	343 - 399	°C
Middle Temperature	343 - 399	°C
Front Temperature	343 - 399	°C
Mold Temperature	93.3 - 177	°C
Injection Pressure	82.7 - 124	MPa

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