RTP 4003 AR 10

Polyphthalamide

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.
-Preliminary Product Data per RTP Co.-

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 20% filler by weight Aramid fiber, 10% filler by weight		
Features	Good wear resistance		
RoHS Compliance	Contact manufacturer		
Appearance	Black Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.37	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.30	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.24	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	124		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	13800	MPa	ASTM D638
Tensile Strength	145	MPa	ASTM D638
Tensile Elongation (Break)	1.0	%	ASTM D638
Flexural Modulus	8410	MPa	ASTM D790
Flexural Strength	186	MPa	ASTM D790
Compressive Strength	145	MPa	ASTM D695
Coefficient of Friction			ASTM D1894
With Metal-Dynamic	0.19		ASTM D1894
With metal-static	0.22		ASTM D1894
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (3.18 mm)	64	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	750	J/m	ASTM D4812
Thermal	**Nominal Value**	**Unit**	**Test Method**

Deflection Temperature Under Load (1.8 MPa, Unannealed)	238	°C	ASTM D648
CLTE - Flow	3.1E-5	cm/cm/°C	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+15	ohms·cm	ASTM D257
Dielectric Strength	20	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	5.20		ASTM D150
Dissipation Factor (1 MHz)	0.017		ASTM D150
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.59 mm)	HB		UL 94

Additional Information

Mold Shrinkage, Linear-Flow, ASTM D955, 0.25in.: 5mil/in.Tensile Elongation, ASTM D638: 1-2%Wear Factor, K, ASTM D3702: 55E-10in^3/min/ft/lb/hrCoefficient of Friction, Static, ASTM D3702: 0.22Coefficient of Friction, Dynamic, ASTM D3702: 0.19The wear factor and coefficient of friction were both 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	304 - 343	°C
Middle Temperature	304 - 343	°C
Front Temperature	304 - 343	°C
Mold Temperature	93.3 - 149	°C
Injection Pressure	68.9 - 138	MPa

Recommended distributors for this material

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