RTP 4082 AR 15 TFE 15

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	Aramid fiber, 15% filler by weight Carbon fiber reinforced material, 15% filler by weight		
Additive	PTFE lubricant (15%)		
Features	Lubrication		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.40	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.20	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.20	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	124		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	14500	MPa	ASTM D638
Tensile Strength	172	MPa	ASTM D638
Tensile Elongation (Break)	1.0	%	ASTM D638
Flexural Modulus	13100	MPa	ASTM D790
Flexural Strength	255	MPa	ASTM D790
Coefficient of Friction (With Metal-Dynamic)	0.13		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)	530	J/m	ASTM D4812
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	271	°C	ASTM D648
1.8 MPa, not annealed	260	°C	ASTM D648
CLTE - Flow	2.2E-5	cm/cm/°C	ASTM D696

Thermal Conductivity	0.40	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+4	ohms·cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm)	HB		UL 94

Additional Information

Mold Shrinkage, Linear-Flow, ASTM D955, 0.25in.: 3mil/in.Tensile Elongation, ASTM D638: 1-2%Wear Factor, K, ASTM D3702: 12E-10in³/min/ft/lb/hrCoefficient of Friction, Dynamic, ASTM D3702: 0.13The 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	121 - 163	°C
Injection Pressure	68.9 - 138	MPa

Recommended distributors for this material

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