

# RTP 4081 AR 10 TFE 20 SI 2

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, 10% filler by weight		
	Carbon fiber reinforced material, 10% filler by weight		
Additive	PTFE lubricant (20%)		
	Silicone lubricant (2%)		
Features	Lubrication		
RoHS Compliance	Contact manufacturer		
Appearance	Black		
	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.40	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.10	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.24	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	10300	MPa	ASTM D638
Tensile Strength	100	MPa	ASTM D638
Tensile Elongation (Break)	1.0	%	ASTM D638
Flexural Modulus	7580	MPa	ASTM D790
Flexural Strength	169	MPa	ASTM D790
Coefficient of Friction (With Metal-Dynamic)	0.15		ASTM D1894
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.18 mm)	43	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	270	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	249	°C	ASTM D648
Flammability	Nominal Value		Test Method

Flame Rating	HB	UL 94
Additional Information		
Mold Shrinkage, Linear-Flow, ASTM D955, 0.25in.: 2mil/in.Wear Factor, K, ASTM D3702: 13E-10in <sup>3</sup> /min/ft/lb/hrCoefficient of Friction, Dynamic, ASTM D3702: 0.15The 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 - 163	°C
Injection Pressure	68.9 - 138	MPa

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#### Recommended distributors for this material

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