



ARLON® 1000

Virgin Polyketone-based, High Performance Components

PLASTIC COMPONENTS

Greene, Tweed offers precision plastic components for a variety of demanding semiconductor applications. These components are made from a full range of high-performance plastic materials including our Arlon® 1000, which is ideal for applications requiring wear resistance, dimensional stability and chemical compatibility without the assistance of additives.

FEATURES & BENEFITS

- Excellent chemical compatibility
- Low extractables
- Good dimensional stability
- Good wear properties

APPLICATIONS

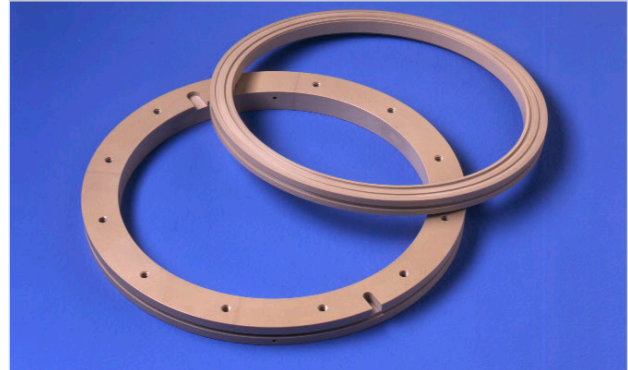
- CMP retainer rings
- Guides
- Slides

TYPICAL PROPERTIES

Physical	Typical Value
Color	Natural
Specific Gravity	1.30
Melt Point (Pellet), °F (°C)	649 (343)
Hardness, Shore D	88
Water Absorption, 24 hrs., %	0.5
Mechanical	
Tensile Break Strength, psi	14,000
Elongation, %	35.0
Flexural Strength, psi	25,300
Flexural 0.5% Secant Modulus, psi	600,000

Statements and recommendations in this publication are based on our experience and knowledge of typical applications of this product and shall not constitute a guarantee of performance nor modify or alter our standard warranty applicable to such products.

Prior to actual use it is recommended compatibility tests be run to determine suitability in a specific application. This is critical where failure could result in injury or damage. A regular program of inspection and replacement should be implemented. Greene, Tweed technical personnel are available to help with a recommendation.



TYPICAL PROPERTIES (cont.)

Mechanical (cont.)	Typical Value
Compressive Strength @ Break, psi	19,000
Coefficient of Dynamic Friction PV=12,600 psi ft/min	0.29
Wear Factor, in ³ -min./lb-ft-hr x 10 ⁻¹⁰	52
Shear Strength @ Room Temperature	
Axial, psi	12,400
Transverse, psi	Not Applicable
Shear Strength @ 450°F (232°C)	
Axial, psi	3,300
Transverse, psi	Not Applicable
Izod Impact Strength	
Notched, ft-lb/inch	1.18
Unnotched, ft-lb/inch	No Break
Thermal	
Heat Distortion Temperature Under Load, @ 264 psi, °F (°C)	350 (177)
Coefficient of Thermal Expansion, <300°F (149°C), inch/inch per °F x 10 ⁻⁵	2.6
Coefficient of Thermal Expansion, >300°F (149°C), inch/inch per °F x 10 ⁻⁵	7.5

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