

Submitted for recognition as an American National Standard

**RINGS, SEALING, PHOSPHONITRILIC FLUOROELASTOMER**  
High-Temperature-Fluid Resistant  
85 - 95  
FZ Type

1. SCOPE:

1.1 Form: This specification covers one type of phosphonitrilic fluoroelastomer in the form of molded rings.

1.2 Classification: Rings having nominal hardness of 90 Durometer A or equivalent.

2. APPLICABLE DOCUMENTS: See AMS 7261.

3. TECHNICAL REQUIREMENTS:

3.1 Basic Specification: The complete requirements for procuring the sealing rings described herein shall consist of this document and the latest issue of the basic specification, AMS 7261.

3.2 Properties: Shall be as follows:

3.2.1 As Received:

3.2.1.1 Hardness, Durometer "A" or equiv.	90 ± 5
3.2.1.2 Tensile Strength, min	900 psi (6.20 MPa)
3.2.1.3 Elongation, min	75%
3.2.1.4 Specific Gravity	Preproduction Value ± 0.02

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3.2.2 Aromatic Fuel Resistance:ASTM Reference Fuel B  
(ASTM D471)3.2.2.1 Hardness Change, Durometer  
"A" or equiv. 0 to -10Temperature: 20° - 30°C  
(68° - 86°F)  
Time: 22 hr  $\pm$  0.253.2.2.2 Tensile Strength Change  
max -25%

3.2.2.3 Elongation Change, max -15%

3.2.2.4 Volume Change +1 to +20%

3.2.3 Synthetic Lubricant Resistance:Medium: AMS 3021 fluid  
(See 8.1)3.2.3.1 Hardness Change, Durometer  
"A" or equiv. 0 to -10Temperature: 150°C  $\pm$  3  
(302°F  $\pm$  5)  
Time: 70 hr  $\pm$  0.53.2.3.2 Tensile Strength Change,  
max -20%

3.2.3.3 Elongation Change, max -15%

3.2.3.4 Volume Change +1 to +20%

3.2.4 Dry Heat Resistance:Temperature: 175°C  $\pm$  3  
(347°F  $\pm$  5)  
Time: 70 hr  $\pm$  0.53.2.4.1 Hardness Change, Durometer  
"A" or equiv. -10 to +103.2.4.2 Tensile Strength Change,  
max -20%

3.2.4.3 Elongation Change, max -20%

3.2.4.4 Weight Loss, max 2%

3.2.5 Compression Set:Percent of Original  
Deflection, max3.2.5.1 After 22 hr  $\pm$  0.25 at  
175°C  $\pm$  3 (347°F  $\pm$  5) 55%3.2.5.2 After exposure to AMS 3021  
fluid as in 3.2.3 45%