

RINGS, SEALING, PHOSPHONITRILIC FLUOROELASTOMER  
High-Temperature-Fluid Resistant  
65 - 75  
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 70 Durometer A or equivalent.

2. APPLICABLE DOCUMENTS: Shall be as shown in 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.  $70 \pm 5$
- 3.2.1.2 Tensile Strength, min  $900 \text{ psi}$   
 $(6.20 \text{ MPa})$
- 3.2.1.3 Elongation, min  $100\%$
- 3.2.1.4 Specific Gravity  $\text{Preproduction}$   
 $\text{Value} \pm 0.02$

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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 -10

Temperature: 20° - 30°C  
(68° - 86°F)

Time: 22 hr ± 0.25

3.2.2.2 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 -10

Temperature: 150°C ± 3  
(302°F ± 5)

Time: 70 hr ± 0.5

3.2.3.2 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 ± 3  
(347°F ± 5)

3.2.4.1 Hardness Change, Durometer "A"  
or equiv.

-10 to +10

Time: 70 hr ± 0.5

3.2.4.2 Tensile Strength Change, max

-20%

3.2.4.3 Elongation Change, max

-45%

3.2.4.4 Weight Loss, max

2%

## 3.2.5 Compression Set:

Percent of Original Deflection, max

3.2.5.1 After 22 hr ± 0.25 at 175°C ± 3  
(347°F ± 5)

45%

3.2.5.2 After exposure to AMS 3021 fluid  
as in 3.2.3

30%

## 3.2.6 Low-Temperature Resistance:

Temperature Retraction

TR<sub>10</sub> Point, max

-55°C

(-65°F)