

**AEROSPACE
MATERIAL
SPECIFICATION**

AMS 7261/2

Issued 4-1-83
Revised

RINGS, SEALING, PHOSPHONITRILIC FLUOROELASTOMER
High-Temperature-Fluid Resistant
75 - 85
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 80 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" 80 $\pm$ 5
or equiv.

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 $\pm$ 0.02

3.2.2 Aromatic Fuel Resistance:

3.2.2.1 Hardness Change, Durometer
"A" or equiv. 0 to -10

ASTM Reference Fuel B
(ASTM D471)

Temperature: 20° - 30°C
(68° - 86°F)

Time: 22 hr $\pm$ 0.25

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- 3.2.2.2 Tensile Strength Change
max -20%
- 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)
Temperature: $150^{\circ}\text{C} \pm 3$
($302^{\circ}\text{F} \pm 5$)
Time: 70 hr ± 0.5

- 3.2.3.1 Hardness Change, Durometer
"A" or equiv. 0 to -10
- 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: $175^{\circ}\text{C} \pm 3$
($347^{\circ}\text{F} \pm 5$)
Time: 70 hr ± 0.5

- 3.2.4.1 Hardness Change, Durometer
"A" or equiv. -10 to +10
- 3.2.4.2 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, max

- 3.2.5.1 After 22 hr ± 0.25 at
 $175^{\circ}\text{C} \pm 3$ ($347^{\circ}\text{F} \pm 5$) 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
TR₁₀ Point, max -55°C
(-65°F)