



400 COMMONWEALTH DRIVE, WARRENTON, PA 15096

# AEROSPACE MATERIAL SPECIFICATION

AMS 7261/2B

Issued 4-1-83  
Revised 10-1-87

Superseding AMS 7261/2A

Submitted for recognition as an American National Standard

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" | $80 \pm 5$                        |
| 3.2.1.2 Tensile Strength, min   | 900 psi<br>(6.20 MPa)             |
| 3.2.1.3 Elongation, min         | 75%                               |
| 3.2.1.4 Specific Gravity        | Preproduction<br>Value $\pm 0.02$ |

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|  |            |  |
|--|------------|--|
| <b>3.2.2 <u>Aromatic Fuel Resistance:</u></b>                      |            | ASTM Reference Fuel B<br>(ASTM D471)                                   |
| 3.2.2.1 Hardness Change, Durometer<br>"A" or equiv.                | 0 to -10   | Temperature: 20° - 30°C<br>(68° - 86°F)<br>Time: 22 hr $\pm$ 0.25      |
| 3.2.2.2 Tensile Strength Change<br>max                             | -20%       |  |
| 3.2.2.3 Elongation Change, max                                     | -15%       |  |
| 3.2.2.4 Volume Change  | +1 to +20% |  |
| <b>3.2.3 <u>Synthetic Lubricant Resistance:</u></b>                |            | Medium: AMS 3021 fluid<br>(See 8.1)                                    |
| 3.2.3.1 Hardness Change, Durometer<br>"A" or equiv.                | 0 to -10   | Temperature: 150°C $\pm$ 3<br>(302°F $\pm$ 5)<br>Time: 70 hr $\pm$ 0.5 |
| 3.2.3.2 Tensile Strength Change<br>max                             | -20%       |  |
| 3.2.3.3 Elongation Change, max                                     | -15%       |  |
| 3.2.3.4 Volume Change  | +1 to +20% |  |
| <b>3.2.4 <u>Dry Heat Resistance:</u></b>                           |            | Temperature: 175°C $\pm$ 3<br>(347°F $\pm$ 5)<br>Time: 70 hr $\pm$ 0.5 |
| 3.2.4.1 Hardness Change, Durometer<br>"A" or equiv.                | -10 to +10 |  |
| 3.2.4.2 Tensile Strength Change,<br>max                            | -20%       |  |
| 3.2.4.3 Elongation Change, max                                     | -20%       |  |
| 3.2.4.4 Weight Loss, max   | 2%         |  |
| <b>3.2.5 <u>Compression Set:</u></b>                               |            |  |
| Percent of Original<br>Deflection, max                             |            |  |
| 3.2.5.1 After 22 hr $\pm$ 0.25 at<br>175°C $\pm$ 3 (347°F $\pm$ 5) | 45%        |  |
| 3.2.5.2 After exposure to AMS 3021<br>fluid as in 3.2.3            | 30%        |  |