

# AEROSPACE MATERIAL SPECIFICATION



AMS 7261/1F

Issued	APR 1983
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Cancelled	AUG 2001
Superseding AMS 7261/1E	

Rings, Sealing, Phosphonitrilic (FZ) Fluoroelastomer  
High-Temperature-Fluid Resistant  
65 - 75

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(724) 772-7161  
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<http://www.sae.org>

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FAX: (724) 776-0790

## 1. SCOPE:

## 1.1 Form:

This specification covers one type of phosphonitrilic (FZ) fluoroelastomer in the form of molded rings.

## 1.2 Classification:

Rings having nominal hardness of 70 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 equivalent  $70 \pm 5$

3.2.1.2 Tensile Strength, minimum 900 psi  
(6.21 MPa)

3.2.1.3 Elongation, minimum 100%

3.2.1.4 Specific Gravity Preproduction  
Value  $\pm 0.02$

3.2.1.5 Temperature Retraction  
TR<sub>10</sub> Point, maximum -55°C  
(-67°F)

3.2.2 Aromatic Fuel Resistance: ASTM Reference Fuel B  
(ASTM D 471)

3.2.2.1 Hardness Change, Durometer  
"A" or equivalent 0 to -10  
Temperature: 20° - 30°C  
(68° - 86°F)  
Time: 22 hours  $\pm 0.25$

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3.2.2.2	Tensile Strength Change, maximum	-25%		
3.2.2.3	Elongation Change, maximum	-15%		
3.2.2.4	Volume Change	+1 to +20%		
3.2.3	Synthetic Lubricant Resistance:		Medium:	AMS 3021
			Temperature:	150°C ± 3 (302°F ± 5)
3.2.3.1	Hardness Change, Durometer "A" or equivalent	0 to -10	Time:	70 hours ± 0.5
3.2.3.2	Tensile Strength Change, maximum	-20%		
3.2.3.3	Elongation Change, maximum	-15%		
3.2.3.4	Volume Change	+1 to +20%		
3.2.3.5	Compression Set, maximum	30%		
3.2.3.6	Temperature Retraction TR <sub>10</sub> Point, maximum	-55°C (-67°F)		
3.2.4	Dry Heat Resistance:		Temperature:	175°C ± 3 (347°F ± 5)
3.2.4.1	Hardness Change, Durometer "A" or equivalent	-10 to +10	Time:	70 hours ± 0.5
3.2.4.2	Tensile Strength Change, maximum	-20%		
3.2.4.3	Elongation Change, maximum	-45%		
3.2.4.4	Weight Loss, maximum	2%		
3.2.4.5	Temperature Retraction TR <sub>10</sub> Point, maximum	-55°C (-67°F)		
3.2.5	Compression Set:			
	Percent of Original Deflection, maximum			