

Submitted for recognition as an American National Standard

RINGS, SEALING, PHOSPHONITRILIC (FZ) FLUOROELASTOMER  
High-Temperature-Fluid Resistant  
85 - 95

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 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 equivalent 90 ± 5

3.2.1.2 Tensile Strength, minimum 900 psi  
(6.21 MPa)

3.2.1.3 Elongation, minimum 75%

3.2.1.4 Specific Gravity Preproduction  
Value ± 0.02

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

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3.2.2	<u>Aromatic Fuel Resistance:</u>		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 ± 0.25
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	<u>Synthetic Lubricant Resistance:</u>		Medium: ARM-100 fluid (See 8.1)
∅			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	45%	
3.2.3.6	Temperature Retraction TR <sub>10</sub> Point, maximum	-55°C (-67°F)	
3.2.4	<u>Dry Heat Resistance:</u>		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	-20%	
3.2.4.4	Weight Loss, maximum	2%	
3.2.5	<u>Compression Set:</u>		
	Percent of Original Deflection, maximum		
3.2.5.1	After 22 hours ± 0.25 at 175°C ± 3 (347°F ± 5)	55%	