SAE The Engineering Resource For Advancing Mobility
400 COMMONWEALTH DRIVE. WARRENDALE. PA 15096

AEROSPACE MATERIAL SPECIFICATION

AMS 7261/1

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Revised

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 ± 5
3.2.1.2	Tensile Strength, min	900 psi (6.20 MPa)
3.2.1.3	Elongation, min	100%
3.2.1.4	Specific Gravity	Preproduction Value ± 0.02

3.2.2 Aromatic Fuel Resistance:		ASTM Reference Fuel B (ASTM D471) Temperature: 20° - 30°C (68° - 86°F) Time: 22 hr ± 0.25
3.2.2.1 Hardness Change, Durometer "A" or equiv.	0 to -10	
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) Temperature: 150°C ± 3 (302°F ± 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°C ± 3 (347°F ± 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	-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_{10} Point, max	-55°C (-65°F)	