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

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" or equiv.	80 ± 5	
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 ± 0.02	
3.2.2 Aromatic Fuel Resistance:		ASTM Reference Fuel B (ASTM D471)
3.2.2.1 Hardness Change, Durometer "A" or equiv.	0 to -10	Temperature: 20° - 30°C (68° - 86°F) Time: 22 hr ± 0.25

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°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	-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°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)	