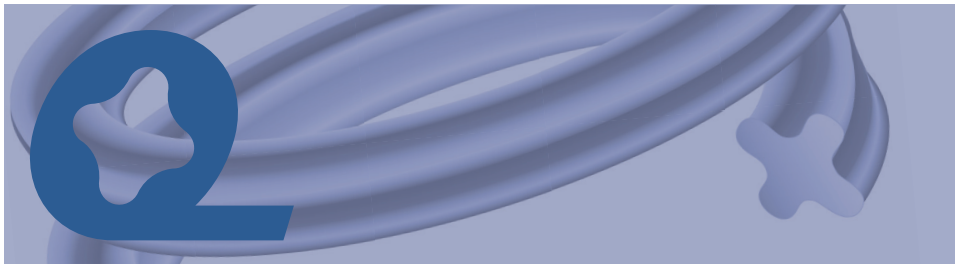
NBR Elastomer Compound 417NU

Minnesota Rubber & Plastics
Quadion LLC



General Features

- Excellent compression set resistance
- Superior heat resistance
- Excellent resistance to petroleum oils, greases, and fuels
- Good low temperature performance

Application

A high temperature NBR with excellent aging and compression set resistance for suitability in a variety of sealing applications.

417NU exhibits excellent resistance to a wide range of petroleum products while providing improved low temperature flexibility and sealing performance.

Quad-Ring® Brand Seals

Quad® Brand O-Ring Seals

Quad® Ground Rubber Balls

Equi-Flex™ Rod Wiper/ Scraper

Original Properties

Property	Unit	Required	Obtained	ASTM Test Method
Hardness	Shore A	70 ± 5	72	D 2240
Tensile	MPa	10 min	18.3	D 412
Elongation at break	%		173	D 412
100% Modulus	MPa		7.9	D 412
Tear Strength, Die C	kN/m		12.4	D 624
Specific Gravity			1.23	D 297

Air Age

Property	Unit	Obtained	ASTM Test Method
Change after 70h @ 100°C			D 573
Δ Hardness	Shore A	2	
Δ Tensile	%	11.8	
Δ Elongation	%	-10.4	

Property	Unit	Obtained	ASTM Test Method
Change after 70h @ 125°C			D 573
Δ Hardness	Shore A	4	
Δ Tensile	%	11.8	
Δ Elongation	%	-10.4	

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Fluid Immersion

Property	Unit	Obtained	ASTM Test Method
IRM 901 oil			
Change after 70h @ 100°C			D 471
Δ Hardness	Shore A	1	
Δ Tensile	%	4.4	
Δ Elongation	%	-2.3	
Δ Volume	%	-1.6	

Property	Unit	Obtained	ASTM Test Method
IRM 903 oil			
Change after 70h @ 100°C			D 471
Δ Hardness	Shore A	-3	
Δ Tensile	%	-8.5	
Δ Elongation	%	-11.6	
Δ Volume	%	7.8	

Property	Unit	Obtained	ASTM Test Method
De-Ionized Water			
Change after 70h @ 100°C			D 471
Δ Hardness	Shore A	-2	
Δ Tensile	%	-20.6	
Δ Elongation	%	-17.3	
Δ Volume	%	4.8	

Compression Set Resistance

Property	Unit	Obtained	ASTM Test Method
			D 395, Method B
22h @ 100°C	%	3.8	
22h @ 125°C	%	5.2	
70h @ 100°C	%	5.2	
70h @ 125°C	%	8.2	

Low Temperature

Property	Obtained	ASTM Test Method
Non-brittleness, 3 min @ -40°C	Pass	D 2137