# **NES** Material Data Sheet MC229 Viton™ 75 Shore USP FDA/3-A

Feb-2025 Revision: 8

**MATERIAL** Viton™ 75 Shore FDA/3-A White & USP Class VI <87 & 88>

ASTM D 2000 M2 HK 710 B37

**DESCRIPTION** Low compression set Viton™ O ring grade

Copolymer with 66% fluorine content

Cure system is Bisphenol

FDA compliant to CFR 21 177-2600 3-A 18-03 compliant to Class 1

This compound has been tested according to (EU) 10/2011

**APPLICATION** This material has excellent resistance to oils, fuels, lubricants, most mineral acids,

aliphatic and aromatic hydrocarbons. Approved to USP Class VI and is

USP biological reactivity tested in vitro <87> and vivo <88>. Extraction tested at 121°C

and is FDA compliant to CFR 21 177-2600

**TEMPERATURE** Low temperature service limit -4°F (-20°C)

Upper temperature continuous service limit +400°F (+204°C)

**PRODUCTS Encapsulated Seals** 

Extrusions (cords/profiles/tubes)

Hot Vulcanised O rings Moulding (custom/O rings)

## PHYSICAL PROPERTIES

ORIGINAL		STANDARD	TYPICAL VALUES	
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	Specific Gravity	ASTM D1817	2.44	
	Durometer shore A (slab)	ASTM D2240	77	
	Elongation % (Dumbbell)	ASTM D412	335	
	Tensile strength Psi (Mpa) (Dumbbell)	ASTM D412	1756 (12.1)	
	Compression set % 22h @ 347°F (175°C) (slab)	ASTM D395B	6.2	
	Low temperature TR-10°F (°C)*	ASTM D1329	1.4 (-17)	
	*Nominal value based on a typical 75 shore vulcanizate			
HEAT AGEING 70h @ 482°F (250°C) ASTM D573				
	Duramatar shanga paints shara A		. 2	



Durometer change points shore A	+3
Elongation change %	-43
Tensile strength change Psi (Mpa)	+290 (+2)
Weight loss grams	0.12

# FLUID IMMERSION Oil No 3 70h @ 302°F (150°C) ASTM D471

Volume change %	+3.3
Durometer change points shore A	-3
Elongation change %	-17
Tensile strength change Psi (Mpa)	-87 (-0.6)

The above information corresponds to our current knowledge and is offered solely to provide possible suggestions for your own experimentations. It is not intended to substitute any testing you may need to conduct to determine suitability of our products for your end use. Northern Engineering reserves the right to revise this information as new knowledge and experience becomes available. Northern Engineering makes no warranties and assumes no liability in connection with any use of the above information.



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