## **NES** Material Data Sheet MC307 Viton™ 'A' 70 Shore FDA/3-A/USP

Jan-2024 Revision: 7

MATERIAL	Viton™ 'A' 70 Shore FDA/3-A/USP Class VI Black	
	ASTM D 2000 M2HK 715 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	
	USP Class VI Part 88	
APPLICATION	This material has excellent resistance to oils, fuels, lubricants, most mineral acids	
	aliphatic and aromatic hydrocarbons. Approved to USP Class VI and 3-A Sanitary	
	Class 1, is USP biological reactivity tested in vivo and extraction tested to 121°C	
	and is FDA compliant to CFR 21 177-2600.	

**TEMPERATURE** 

Low temperature service limit +5°F (-15°C)

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

**PRODUCTS** 

**Encapsulated Seals** 

Extrusions (cords/profiles/tubes)

Hot Vulcanised O rings

## PHYSICAL PROPERTIES

ORIGINAL	STANDARD	TYPICAL VALUES
Specific Gravity	ASTM D1817	1.99
Durometer shore A (slab)	ASTM D2240	67
Elongation % (Dumbbell)	ASTM D412	409
Tensile strength Psi (Mpa) (Dumbbell)	ASTM D412	1746 (12)
Compression set % 22h @ 347°F (175°C) (slab)	ASTM D395B	6.8
Low temperature TR-10 °F (°C)*	ASTM D1329	1.4 (-17)
*Nominal value based on a typical 75 shore vulcanizate		

HEAT AGEING 70h @ 392°F (200°C) ASTM D573

Durometer change points shore A	+2
Elongation change %	-29
Tensile strength change Psi (Mpa)	+145 (+1.0)
Weight loss %	0.3

## FLUID IMMERSION ASTM 3 70h @ 302°F (150°C) ASTM D471

Volume change %	+1.2
Durometer change points shore A	0
Elongation change %	+56
Tensile strength change Psi (Mpa)	-145 (-1.0)

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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