

# MC309 Epdm 70 Shore 'FDA 177.2600 & USP VI <88> at 121°C/USP VI' ASTM D 2000 M2CA 810 A25

Material Datasheet • Issue 4 • Jul 2017

## Material

Epdm 70 Shore  
'FDA 177.2600 & USP VI <88> at 121°C/USP VI'  
ASTM D 2000 M2CA 810 A25

## Description

- Epdm is a polymer of ethylene, propylene and a small amount of diene.
- Cure system is peroxide.

## Application

Epdm's have a good resistance to ozone, ageing and weathering. They are suitable for HFC & HFD flame retardant hydraulic oils and brake fluids and have exceptional resistance to hot water, steam and acids. Approved to USP Class VI, is USP biological reactivity tested in vivo and extraction tested at 121°C and is FDA Compliant to CFR 21 177-2600 and European regulations EC1935/2004.

## Temperature

- Low temperature service limit -40°F (-40°C).
- Upper temperature continuous service limit +248°F (+120°C).

## Products

- Encapsulated O Rings
- Extrusions (cords/profiles/tubes)
- Inflatable Seals
- VulcOrings & Vulcanised Profiles



## Physical Properties

Original	Standard	Typical Values
Specific Gravity	ASTM D1817	1.18
Durometer shore A (slab)	ASTM D2240	68
Elongation % (Dumbbell)	ASTM D412	365
Tensile strength Psi (Mpa) (Dumbbell)	ASTM D412	1813 (12.5)
Compression set % 22h @ 212°F (100°C) (slab)	ASTM D395B	11.6

### Heat Ageing 70h @ 212°F (100°C) ASTM D573

Durometer change points shore A	+2
Elongation change %	+16
Tensile strength change Psi (Mpa)	-29 (-0.2)
Weight loss %	0.6

### Fluid Immersion Oil No 3 70h @ 212°F (100°C) ASTM D471

Volume change %	+147
Durometer change points shore A	-35
Elongation change %	-189
Tensile strength change Psi (MPa)	-870 (-6.0)

## Information

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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