NES Material Data Sheet MC581 FKM 85 Shore Brown



Aug-2020 Revision: 1

MATERIAL FKM 85 Shore Brown

ASTM D 2000 M2 HK A1-10 B37

DESCRIPTION Low compression set FKM O ring grade

Copolymer with 66% fluorine content

Cure system is Bisphenol

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

aliphatic and aromatic hydrocarbons.

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

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

PRODUCTS Extrusions (cords/profiles/tubes)

ORIGINAL

Hot Vulcanised O rings Moulding (custom/O rings)

PHYSICAL PROPERTIES

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	Specific Gravity	ASTM D1817	2.51
	Durometer shore A (slab)	ASTM D2240	87
	Elongation % (Dumbbell)	ASTM D412	129.3
	Tensile strength Psi (Mpa) (Dumbbell)	ASTM D412	1618 (11.15)
	Compression set % 22h @ 347°F (175°C) (slab)	ASTM D395B	9.42
	Low temperature TR-10°F (°C)*	ASTM D1329	-17
	*Nominal value based on a typical 75 shore vulcanizate		
HEAT AGEING 70h @ 482°F (250°C) ASTM D573			
	Durometer change points shore A		+2.6

STANDARD

TYPICAL VALUES

Durometer change points shore A +2.6 Elongation change % -20 Tensile strength change Psi (Mpa) +392 (27) Weight loss grams 0.17

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

Volume change %	+2.34
Durometer change points shore A	+1.7
Elongation change %	+1.15
Tensile strength change Psi (Mpa)	-638 (4.4)

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.



Tel: +44 (0) 1909 560 203 Fax: +44 (0) 1909 560 184 Email: sales@nes-ips.com Web: www.nes-ips.com