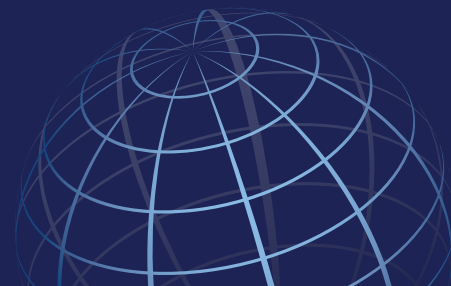




Material Data Sheet

MC580 FKM 60 Shore Brown



Jun-2020

Revision: 1

MATERIAL FKM 60 Shore Brown
ASTM D 2000 M2HK 612 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.
This unique formulation of elastomer is specifically formulated and developed for Semiconductor Sealing Applications such as EUV lithography which require low outgassing and very low compression set properties.

TEMPERATURE Low temperature service limit -4°F (-20°C)
Upper temperature continuous service limit +400°F (+204°C)

PRODUCTS Extrusions (cords/profiles/tubes)
Hot Vulcanised O rings
Moulding (custom/O rings)

PHYSICAL PROPERTIES

ORIGINAL	STANDARD	TYPICAL VALUES
Specific Gravity	ASTM D1817	2.14
Durometer shore A (slab)	ASTM D2240	65
Elongation % (Dumbbell)	ASTM D412	476
Tensile strength Psi (Mpa) (Dumbbell)	ASTM D412	1811 (12.48)
Compression set % 22h @ 347°F (175°C) (slab)	ASTM D395B	5.39
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

Durometer change points shore A	+2.6
Elongation change %	-31
Tensile strength change Psi (Mpa)	+261 (+1.8)
Weight loss grams	0.16

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

Volume change %	+8.2
Durometer change points shore A	-2
Elongation change %	-30
Tensile strength change Psi (Mpa)	-398 (-2.74)

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.