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Marco Compound # V1202 75 Durometer, Brown FDA and 3A Sanitary FKM Technical Datasheet

Common Names:

FKM, Fluoropolymer, Fluorel®, Viton®,

General Description:

FKM compounds are widely used in chemical, pharmaceutical, aerospace and industrial applications. These compounds offer excellent chemical and temperature resistance. Brown Viton can provide improved resistance to oxidative environments and reactive plasmas. There are many additional specialty compounds based on A, B, F, GLT, GFLT, LTFE and ETP polymer types. Please contact engineering@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, chemicals, or physical properties is required.

Features:

- FDA and 3A sanitary compliant.
- High temperature resistance.
- Excellent resistance to aging and ozone.
- Low gas permeability, low compression set.

Limitations:

Steam, hot water, polar solvents, low molecular weight organic solvents and glycol-based brake fluids.

Cure System:

Bisphenol

Service Temperature:

-15 to 400° F

(Additional compounds may be available with expanded temperature ranges).

Specification:

ASTM 2000 M4HK710 A1-10 B38 C12 C20 EF31 EO88 Z1 Z2

Z1 = Meets FDA 177.2600

Z2 = Meets 3A Sanitary Class 1 requirements

PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A, ASTM D2240 (Z1=75+/-5)	75 +/- 5	76
Color	Brown	Brown
Tensile Strength, psi, ASTM D412	1,450min.	1,773
Ultimate Elongation, %, ASTM D412	150 Min.	160

HEAT RESISTANCE - A1-10, ASTM D 573 (70 hrs. @ 250°C)	ASTM D2000	Typical Test
	Requirements	Results
Hardness Change, Shore A, ASTM D2240	+10 (max)	+2
Tensile Strength Change, %, ASTM D412	-25 (max)	-4
Ultimate Elongation Change, %, ASTM D412	-25 (max)	-8

COMPRESSION SET – B38, ASTM D 395 Method B (22 hrs. @ 200°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	15 (max)	13.9

RESISTANCE TO OZONE – C12, ASTM D D1171 Method B	ASTM D2000 Requirements	Typical Test Results
Cracks	No cracks	Pass

RESISTANCE TO OUTDOOR AGING – C20, ASTM D D1171	ASTM D2000 Requirements	Typical Test Results
Cracks	No cracks	Pass

FLUID RESISTANCE – ASTM Fuel C – EF31, ASTM D 471(70 hrs. @ 23°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	+/- 5	-1
Tensile Strength Change, %, ASTM D412	-25 (max)	-14
Ultimate Elongation Change, %, ASTM D412	-20 (max)	-12
Volume Change, %, ASTM D471	0 to + 10	+ 3

FLUID RESISTANCE – Stauffer 7700/SAE Fluid #2 – EF31, (70 hrs. @ 200°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	-15/+5	-6
Tensile Strength Change, %, ASTM D412	-40 (max)	-21
Ultimate Elongation Change, %, ASTM D412	-20 (max)	-14
Volume Change, %, ASTM D471	+25 (max)	+ 8

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Fluorel® is a registered trademark of Dyneon.