



## Marco Compound # V1059 75 Durometer, Red, FDA and USP Class VI FKM Technical Datasheet

### Common Names:

FKM, Fluoropolymer, Fluorel®, Viton®,

### General Description:

FKM compounds are widely used in chemical, automotive, aerospace and industrial applications. These compounds offer excellent chemical and temperature resistance. There are many additional specialty compounds based on A, B, F, GLT, GFLT, LTFE and ETP polymer types. Please contact [engineering@marcorubber.com](mailto:engineering@marcorubber.com) for assistance in selecting a specialized compound when increased resistance to temperature, chemicals, or physical properties is required.

### Features:

- USP Class VI certified
- USDA 3A Sanitary 18-20 Classes I, II, III and IV certified
- High temperature resistance.
- Excellent resistance to acids, fuels, mineral oils, greases, aliphatic, aromatic and chlorinated hydrocarbons, non-flammable hydraulic fluids (HFD) and many organic solvents and chemicals.
- Excellent resistance to aging and ozone.
- Low gas permeability, low compression set.

### Limitations:

- Steam, hot water, amines, 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 / SAE J200 M2HK 710 A1-10 B37 EF31 F15

1. Tested and certified to USP Class VI
2. This material meets FDA requirements, 21 CFR 177.2600, for repeated food contact.
3. This material has been tested to and certified to USDA 3A Sanitary Standard Number 18-02 Classes I, II, III and IV.



## PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A, ASTM D2240 (Z1=75+/-5)	75 +/- 5	74
Color	Red	Red
Tensile Strength, psi, ASTM D412	1,450min.	2,200
Ultimate Elongation, %, ASTM D412	175 Min.	182

HEAT AGING – A1-10, ASTM D 573 (70 hrs. @ 250°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	+10 (max)	+1
Tensile Strength Change, %, ASTM D412	-25 (max)	-7
Ultimate Elongation Change, %, ASTM D412	-25 (max)	-8

COMPRESSION SET – B37, ASTM D 395 Method B (22 hrs. @ 200°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	50 (max)	8

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	-3
Tensile Strength Change, %, ASTM D412	-25 (max)	-21
Ultimate Elongation Change, % ASTM D412	-20 (max)	-15
Volume Change, %, ASTM D471	0 to + 10	+3

LOW TEMPERATURE BRITTLINESS	ASTM D2000 Requirements	Typical Test Results
3 Minutes at -25°C, ASTM D2137 (F15)	No Cracks	Pass

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Fluorel® is a registered trademark of Dyneon.