

## Marco Compound # V1190

### FKM 75 Durometer, Brown, FDA Compliant & NSF51/61 Certified

### Technical Datasheet

**Common Names:**

FKM, Fluoropolymer, Fluorel®, Viton®,

**General Description:**

FKM compounds are widely used in chemical, automotive, aerospace, food processing and industrial applications. These compounds offer excellent chemical and temperature resistance. V1190 is Marco's FDA compliant & NSF51/61 certified compound. 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:**

- FDA compliant
- NSF51/61 certified
- Good steam resistance for steam-in-place (SIP) and clean-in-place (CIP) procedures.
- 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:**

- Polar solvents, low molecular weight organic solvents and glycol-based brake fluids.

**Service Temperature:**

-15 to 437° F

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

**Specifications:****ASTM D2000 M2HK 810 A1-10 B37 B38****PHYSICAL PROPERTY STANDARDS**

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A, ASTM D2240	75 +/- 5	75
Color	Brown	Brown
Tensile Strength, MPa (psi), ASTM D412	10.0 (1,450) min.	11.2 (1,620)
Ultimate Elongation, %, ASTM D412	150 Min.	275
Tear Resistance, Kgf/cm, ASTM D624		29
Modulus @ 100%, psi, ASTM D412		687
Specific Gravity, g/cm <sup>3</sup>		2.125

This information is to the best of our knowledge accurate and reliable. However, Marco Rubber makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It's the customer's responsibility to evaluate parts prior to use.

<b>HEAT RESISTANCE – A1-11, ASTM D 573 (70 hrs. @ 250°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Hardness Change, Shore A, ASTM D2240	+10 (max)	+1
Tensile Strength Change, %, ASTM D412	-25 (max)	+2
Ultimate Elongation Change, %, ASTM D412	-25 (max)	-17
Volume Change, %, ASTM D412		-2

<b>HEAT RESISTANCE – A1-11, ASTM D 573 (70 hrs. @ 275°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Hardness Change, Shore A, ASTM D2240		+6
Tensile Strength Change, %, ASTM D412		-31
Ultimate Elongation Change, %, ASTM D412		-20
Volume Change, %, ASTM D412		-9.7

<b>COMPRESSION SET – B38, ASTM D 395 Method B (22 hrs. @ 175°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Permanent Set, %, 22 hrs. @ 175°C	50 (max)	13
Permanent Set, %, 22 hrs. @ 200°C	50 (max)	19

<b>FLUID RESISTANCE – Service Fluid 101 – ASTM D 471(70 hrs. @ 200°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Hardness Change, Shore A, ASTM D2240		-10
Tensile Strength Change, %, ASTM D412		-20
Ultimate Elongation Change, %, ASTM D412		+4
Volume Change, %, ASTM D471		+11.6

<b>FLUID RESISTANCE – Hatco 7700 – ASTM D 471(70 hrs. @ 200°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Hardness Change, Shore A, ASTM D2240		-15
Tensile Strength Change, %, ASTM D412		-18
Ultimate Elongation Change, %, ASTM D412		-14
Volume Change, %, ASTM D471		+17

<b>FLUID RESISTANCE – Reference Fuel C – ASTM D 471(70 hrs. @ 23°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Hardness Change, Shore A, ASTM D2240		-4
Tensile Strength Change, %, ASTM D412		-24
Ultimate Elongation Change, %, ASTM D412		-6
Volume Change, %, ASTM D471		+4

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Fluorel® is a registered trademark of Dyneon.