Request a Quote

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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 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^3		2.125

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HEAT RESISTANCE – A1-11, 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)	+2
Ultimate Elongation Change, %, ASTM D412	-25 (max)	-17
Volume Change, %, ASTM D412		-2

HEAT RESISTANCE – A1-11, ASTM D 573 (70 hrs. @ 275°C)	**ASTM D2000 Requirements**	**Typical Test Results**
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

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

FLUID RESISTANCE – Service Fluid 101 – ASTM D 471(70 hrs. @ 200°C)	**ASTM D2000 Requirements**	**Typical Test Results**
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

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

FLUID RESISTANCE – Reference Fuel C – ASTM D 471(70 hrs. @ 23°C)	**ASTM D2000 Requirements**	**Typical Test Results**
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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