

Marco Compound # V1088

75 Durometer, Black, FKM Type F

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 sales@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, chemicals, or physical properties is required.

Features:

- FKM Type F
- Better automotive fuels, lubricant oils and aromatic hydrocarbons resistance than FKM Type A.
- 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:

+1 to 437°F (-17 to 225°C)

Specification:

ASTM 2000 M2HK814 A1-10 B37 EF31 EO78 F16 Z1 (Z1 = F Type)

PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A, ASTM D2240 (Z1=75+/-5)	75 +/- 5	75
Color	Black	Black
Tensile Strength, MPa (psi), per ASTM D412	14.0 (2,016) min.	18.7 (2,695))
Ultimate Elongation, %, per ASTM D412	150 Min.	283
Specific Gravity	----	1.87

HEAT RESISTANCE – 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)	-4

COMPRESSION SET – B37, ASTM D 395 Method B (22 hrs. @ 175°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	50 (max)	9

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	+/- 10	-2
Tensile Strength Change, %, ASTM D412	-25 (max)	-11
Ultimate Elongation Change, %, ASTM D412	-20 (max)	-10
Volume Change, %, ASTM D471	0 to + 10	+3

FLUID RESISTANCE –ASTM #101 Oil – EO78, ASTM D 471 (70 hrs. @ 200°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	-15 to + 5	-7
Tensile Strength Change, %, ASTM D412	-40 (max)	-25
Ultimate Elongation Change, %, ASTM D412	-20 (max)	-12
Volume Change, %, ASTM D412	0 to + 15	+10

LOW TEMPERATURE RESISTANCE – (3min. @ -35°C)	ASTM D2000 Requirements	Typical Test Results
Brittleness	Non-Brittle	Pass

Date: 2016-10-3

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