Request a Quote

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Marco Compound # V1118

FKM 70 Durometer, White, FDA Compliant & USP Class VI Certified, ADIF

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. V1118 is Marco's FDA compliant & USP Class VI certified ADIF 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
- USP Class VI certified
- Good steam resistance for steam-in-place (SIP) and clean-in-place (CIP) procedures.
- ADIF (Animal Derived Ingredient Free)
- 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 2HK 715 A1-10 B37 B38
ASTM D2000 4HK 715 A1-11 B38
ASTM D2000 6HK 715 A1-10 A1-11 B31

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	Typical Test Results
Color	White
Hardness, Shore A	71
Tensile Strength	2,032 psi (14.0 MPa)
Modulus @ 100% Elongation	332 psi (2.3 MPa)
Ultimate Elongation, %	314
Specific Gravity	2.23 grams/cc
Tear Resistance, Die B	85 ppi (14.9 kN/m)

Tear Resistance, Die C	103 ppi (18.0 kN/m)

COMPRESSION SET	**Typical Test Results**
Plied: 22 hrs @ RT (73°F, 23°C)	9.3%
Plied: 22 hrs @ 347°F (175°C)	10.6%
Plied: 22 hrs @ 392°F (200°C)	14.1%

HEAT AGED: 70 hrs @ 482°F (250°C)	**Typical Test Results**
Change – Tensile Strength	+19.1%
Change – Elongation	+11.1%
Change – Hardness, Shore A	+2

HEAT AGED: 70 hrs @ 527°F (275°C)	**Typical Test Results**
Change – Tensile Strength	+16.7%
Change – Elongation	+37.3%
Change – Hardness, Shore A	+2

DISTILLED WATER AGED: 70 hrs @ 212°F (100°C)	**Typical Test Results**
Change – Tensile Strength	-7.0%
Change – Elongation	+4.5%
Change – Hardness, Shore A	-4
Change – Volume	+4.0%

USP <661> Physicochemical Tests for Plastics	**Typical Test Results**
	PASS

USP <87> Biological Reactivity Test for Class VI	**Typical Test Results**
Reactivity: Grade	.0

USP <88> Biological Reactivity Test for Class VI	**Typical Test Results**
	PASS

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Fluorel® is a registered trademark of Dyneon.