Request a Quote

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Marco Compound # V1182
70 Durometer, Black, GFLT Type 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. Marco's V1182 compound is a GFLT type FKM which offers increased chemical and low 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 for assistance in selecting a specialized compound when increased resistance to temperature, chemicals, or physical properties is required.

Features:
- Low temperature capabilities
- 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:
Peroxide

Service Temperature:
-35° to +204°C (-31° to 400°F)

PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	Typical Test Results
Hardness, Shore A	74
Color	Black
Tensile Strength, MPa (psi)	15.4 (2233)
Modulus @ 100% Elongation, MPa (psi)	5.6 (819)
Ultimate Elongation, %	197
Specific Gravity	1.89
Brittleness Temperature, °C	-40
TR-10 Temperature, °C	-24

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HEAT AGING – (70 hrs. @ 250°C)	**Typical Test Results**
Hardness Change, Shore A	-1
Tensile Strength Change, %	+12.7
Ultimate Elongation Change, %	+28.2

HEAT AGING – (70 hrs. @ 275°C)	**Typical Test Results**
Hardness Change, Shore A	-1
Tensile Strength Change, %	+11.3
Ultimate Elongation Change, %	+58.0

COMPRESSION SET - % Permanent set	**Typical Test Results**
22 hrs @ 23°C	8.3
22 hrs @ 175°C	9.6
22 hrs @ 200°C	13.3

IMMERSION, ASTM REFERENCE FUEL A– (70 Hours @ Room Temperature)	**Typical Test Results**
Tensile Strength Change, %	-14.8
Ultimate Elongation Change, %	-9.2
Hardness Change, Shore A	+1
Volume Change, %	+0.6

IMMERSION, ASTM REFERENCE FUEL C– (70 Hours @ Room Temperature)	**Typical Test Results**
Tensile Strength Change, %	-30.4
Ultimate Elongation Change, %	-17.7
Hardness Change, Shore A	-1
Volume Change, %	+3.4

IMMERSION, ASTM OIL #1 (IRM 901) – (70 Hours @ 150°C)	**Typical Test Results**
Tensile Strength Change, %	+2.3
Ultimate Elongation Change, %	-0.6
Hardness Change, Shore A	+0
Volume Change, %	+0.5

IMMERSION, ASTM OIL #3 (IRM 903) – (70 Hours @ 150°C)	**Typical Test Results**
Tensile Strength Change, %	-2.8
Ultimate Elongation Change, %	+6.1
Hardness Change, Shore A	-1
Volume Change, %	+1.6

IMMERSION, SERVICE FLUID 101 – (70 Hours @ 200°C)	**Typical Test Results**
Tensile Strength Change, %	-9.3
Ultimate Elongation Change, %	-6.9
Hardness Change, Shore A	-3

Volume Change, %	+5.7

IMMERSION, STAUFFER BLEND 7700 – (70 Hours @ 200°C)	**Typical Test Results**
Tensile Strength Change, %	-10.4
Ultimate Elongation Change, %	-4.9
Hardness Change, Shore A	-4
Volume Change, %	+7.3

IMMERSION, ETHANOL – (1600 Hours @ 23°C)	**Typical Test Results**
Hardness Change, Shore A	-2
Volume Change, %	+5.1

IMMERSION, METHANOL – (1600 Hours @ 23°C)	**Typical Test Results**
Hardness Change, Shore A	-6
Volume Change, %	+9.2