Request a Quote

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Marco Compound # V1002
75 Durometer Black, AMS 7276 and MIL-R-83248C 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 compound V1002 meets AMS 7276 and MIL-R-83248. 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:
- 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, polar solvents, low molecular weight organic solvents and glycol-based brake fluids.

Cure System:
Bisphenol

Service Temperature:
-15 to 437°F (-26 to 225°C)
(Additional compounds may be available with expanded temperature ranges).

Specification:
AMS-7276 and MIL-R-83248C Type 1 Class 1

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM 2000 Requirements	Typical Test Results
Hardness, Shore A	75 +/- 5	77
Color	Black	Black
Tensile Strength, psi (MPa)	1,400 min. (9.65)	2,262 (15.6)
Ultimate Elongation, %	125 min.	130
Specific Gravity, ASTM D297	As determined	1.84

TEMPERATURE RETRACTION – ASTM D1329	**ASTM D2000 Requirements**	**Typical Test Results**
TR-10, Degrees F	+ 5 or colder	+3

HEAT RESISTANCE – AIR AGING ASTM D573 (70 hrs. @ 518°F)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, Shore A, ASTM D2240	-5 to +10	+3
Tensile Strength Change, %, ASTM D1414	-35 (max)	-17
Ultimate Elongation Change, %, ASTM D1414	-15 (max)	-3
Weight Loss, %, ASTM D297	10 max	3.6

COMPRESSION SET – ASTM D 395 Method B and ASTM D1414 (22 hrs. @ 392°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Permanent Set %	15 (max)	10
Percentage of original deflection, %	40 (max)	28

ARM-200 Fluid Immersion, ASTM D471 and ASTM D1414 (70 hrs. @ 392°F)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points, ASTM D2240	-15 to 0	-7
Tensile Strength Change, %, ASTM D1414	-35 (max)	-12
Ultimate Elongation Change, %, ASTM D1414	-20 (max)	+18
Volume Change, %, ASTM D297	+1 to + 25	17

COMPRESSION SET – ASTM D395 Method B and ASTM D1414 (70 hrs. @ 200°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Permanent Set %	10 (max)	8

FUEL B Immersion - ASTM D471 and ASTM D1414 (70 hrs. @ 75°F)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, Shore A, ASTM D2240	-15 to + 5	+3
Tensile Strength Change, %, ASTM D1414	-20 (max)	-7
Ultimate Elongation Change, %, ASTM D1414	-20 (max)	-8
Volume Change, %, ASTM D471	0 to + 5	+1.3

Date: 2016-10-3