



**Marco Compound # V1186**  
**75 Durometer Black, FKM Meets Daimler Chrysler MS-BZ832, Grade A3**  
**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 [engineering@marcorubber.com](mailto:engineering@marcorubber.com) for assistance in selecting a specialized compound when increased resistance to temperature, chemicals, or physical properties is required.

**Features:**

- Meets Daimler Chrysler MS-BZ832, Grade A3 specification
- 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.

**Service Temperature:**

-15 to 400°F

**PHYSICAL PROPERTY STANDARDS**

ORIGINAL PROPERTIES	Requirements	Typical Test Results
Hardness, Shore A	75 +/- 5	75
Color	Black	Black
Tensile Strength, MPa	8.6	13
Ultimate Elongation, %	150 min.	164
Modulus @ 100%, MPa	n/a	7
TR-10, °C	-15	-16

<b>COMPRESSION SET – ASTM D 395 (70 hrs @ 150°C)</b>	<b>Requirements</b>	<b>Typical Test Results</b>
Permanent Set %	30 (max)	4

<b>FLUID AGING – IRM903 - ASTM D471 (70 hrs @ 150°C)</b>	<b>Requirements</b>	<b>Typical Test Results</b>
Hardness Change, Pts Shore A	+/- 5	-1
Tensile Strength, MPa	7.7 (min)	12.9
Ultimate Elongation, %	130 (min)	162
Volume Change, %	5 (max)	+2

<b>FLUID AGING – MS-6395-H ENGINE OIL - ASTM D471 (70 hrs @ 150°C)</b>	<b>Requirements</b>	<b>Typical Test Results</b>
70H Hardness Change, Pts Shore A	+/- 5	-2
70H Tensile Strength, MPa	5 (min)	11.8
70H Ultimate Elongation, %	100 (min)	160
70H Volume Change, %	5 (max)	+1
168H Tensile Strength, MPa	4.5 (min)	11.5
168H Ultimate Elongation, %	90 (min)	160
504H Tensile Strength, MPa	4 (min)	11.3
504H Ultimate Elongation, %	70 (min)	141

<b>FLUID AGING – MS-9763 GEAR LUBE - ASTM D471 (70 hrs @ 150°C)</b>	<b>Requirements</b>	<b>Typical Test Results</b>
70H Hardness Change, Pts Shore A	+/- 5	-1
70H Tensile Strength, MPa	6 (min)	7.4
70H Ultimate Elongation, %	100 (min)	104
70H Volume Change, %	5 (max)	+2
168H Tensile Strength, MPa	5 (min)	7
168H Ultimate Elongation, %	80 (min)	80
504H Tensile Strength, MPa	4 (min)	8
504H Ultimate Elongation, %	50 (min)	74

<b>FLUID AGING – MS-9602B ATF - ASTM D471 (70 hrs @ 150°C)</b>	<b>Requirements</b>	<b>Typical Test Results</b>
70H Hardness Change, Pts Shore A	+/- 7	-3
70H Tensile Strength, MPa	7 (min)	11.5
70H Ultimate Elongation, %	140 (min)	157
70H Volume Change, %	5 (max)	+1
168H Tensile Strength, MPa	6 (min)	9.6
168H Ultimate Elongation, %	120 (min)	138
504H Tensile Strength, MPa	5 (min)	8
504H Ultimate Elongation, %	100 (min)	115
504H Elongation, @50% Crack Test	No Cracks	PASS

Viton® is a registered trademark of Dupont.

Fluorel® is a registered trademark of Dyneon.

This information is to the best of our knowledge accurate and reliable. However, Marco Rubber makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It's the customer's responsibility to evaluate parts prior to use.