



Marco Compound # V1007 90 Durometer, Black, Commercial Grade 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. V1007 is Marco's basic commercial grade 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:

- High temperature resistance.
- High Durometer.
- 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

(Additional compounds may be available with expanded temperature ranges).

Specification:

ASTM D2000 M2HK910 A1-10 B38 EF31 EO78

PHYSICAL PROPERTY STANDARDS

| ORIGINAL PROPERTIES | ASTM D2000 Requirements | Typical Test Results |
|------------------------|-------------------------|----------------------|
| Hardness, Shore A | 90 +/- 5 | 90 |
| Color | Black | Black |
| Tensile Strength, psi | 1,450 min. | 1843 |
| Ultimate Elongation, % | 100 Min. | 128 |
| Specific Gravity | ----- | 1.833 |

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.

| HEAT RESISTANCE – A1-11, ASTM D 573 (70 hrs. @ 250°C) | ASTM D2000 Requirements | Typical Test Results |
|--|--------------------------------|-----------------------------|
| Hardness Change, points | +10 (max) | +2 |
| Tensile Strength Change, % | -25 (max) | -3.1 |
| Ultimate Elongation Change, % | -25 (max) | -9.5 |

| COMPRESSION SET – B38, ASTM D 395 Method B (22 hrs. @ 200°C) | ASTM D2000 Requirements | Typical Test Results |
|---|--------------------------------|-----------------------------|
| Permanent Set % | 50 (max) | 20.7 |

| FLUID RESISTANCE – ASTM Fuel C – EF31, ASTM D471(70 hrs. @ 23°C) | ASTM D2000 Requirements | Typical Test Results |
|---|--------------------------------|-----------------------------|
| Hardness Change, points | +/- 5 | -3 |
| Tensile Strength Change, % | -25 (max) | -13.2 |
| Ultimate Elongation Change, % | -20 (max) | -6.7 |
| Volume Change, % | 0 to + 10 | +2.2 |

| FLUID RESISTANCE – ASTM #101 Oil – EO78, ASTM D471(70 hrs. @ 200°C) | ASTM D2000 Requirements | Typical Test Results |
|--|--------------------------------|-----------------------------|
| Hardness Change, points | -15 to +5 | -9 |
| Tensile Strength Change, % | -40 (max) | -15.8 |
| Ultimate Elongation Change, % | -20 (max) | -8.2 |
| Volume Change, % | 0 to + 10 | +11.1 |

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Fluorel® is a registered trademark of Dyneon.