

Marco Compound # V1082

90 Durometer, Black, GLT 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. 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:

-40°C to +225°C (-40° to 437° F)

PHYSICAL PROPERTIES

| ORIGINAL PROPERTIES Press Cure @ 170°C X 10 Minutes, Post Cure @ 230°C X 24 Hours | Specification Requirements | Typical Test Results |
|--|-------------------------------|-------------------------|
| Hardness, Shore A | 90 +/- 5 | 86 |
| Color | Black | Black |
| Tensile Strength, MPa (psi) | 10.0 (1450) min | 13.3 (1928) |
| Ultimate Elongation, % | 100 min | 105 |
| Specific Gravity | - | 1.82 |

| HEAT AGING – (70 hrs. @ 250°C) | Specification Requirements | Typical Test Results |
|---------------------------------------|-----------------------------------|-----------------------------|
| Hardness Change, Shore A | +10 max | +4 |
| Tensile Strength Change, % | -25 max | -6 |
| Ultimate Elongation Change, % | -25 max | +18 |

| COMPRESSION SET – Heat Aging @ 250°C X 70 Hours | Specification Requirements | Typical Test Results |
|--|-----------------------------------|-----------------------------|
| % Permanent set | 50 max | 38 |

| FUEL C OIL IMMERSION – (70 Hours @ Room Temperature) | Specification Requirements | Typical Test Results |
|---|-----------------------------------|-----------------------------|
| Hardness Change, Shore A | +/- 5 | -4 |
| Tensile Strength Change, % | -25 max | -15 |
| Ultimate Elongation Change, % | -20 max | -10 |
| Volume Change, % | 0 to + 10 | +4 |

| IMMERSION OIL #101 – (70 Hours @ 200° C) | Specification Requirements | Typical Test Results |
|---|-----------------------------------|-----------------------------|
| Hardness Change, Shore A | -15 to +5 | -8 |
| Tensile Strength Change, % | -40 max | -15 |
| Ultimate Elongation Change, % | -20 max | -12 |
| Volume Change, % | 0 to +15 | +13 |

| IMMERSION FLUID #2, EHEND 7700 – (70 Hours @ 200° C) | Specification Requirements | Typical Test Results |
|---|-----------------------------------|-----------------------------|
| Hardness Change, Shore A | --- | -13 |
| Tensile Strength Change, % | --- | -14 |
| Ultimate Elongation Change, % | --- | +16 |
| Volume Change, % | --- | +18 |

| OZONE RESISTANCE, TEST METHOD D1171 | Specification Requirements | Typical Test Results |
|--|-----------------------------------|-----------------------------|
| 40°C for 70 Hrs. | No Cracks | Passed |

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