



Marco Compound # V1054

80 Durometer, Black, Conductive 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 V1054 uses a specialty carbon nanotube filler which increases the conductivity of the material while maintaining good mechanical properties. 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:

- Semi-conductive fluorocarbon using carbon nanotube filler
- Excellent static dissipation
- 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

(Additional compounds may be available with expanded temperature ranges)

Specification:

ASTM D2000 M2HK810A1-10B38C12EF31F15

TYPICAL PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A (Z1)	80 +/- 5	79
Color	Black	Black
Tensile Strength, MPA, (psi)	10 (1,450)	13 (1885)
Ultimate Elongation, %	150 Min.	205
Typical Volume Resistivity. ohm-cm	-----	10 ²

HEAT RESISTANCE – A1-10, ASTM D 573 (70 hrs. @ 250°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	+10 max.	+3
Tensile Strength Change, %	-25 max.	-20
Ultimate Elongation Change, %	-25 max.	+20.5

COMPRESSION SET – B38, ASTM D 395 Method B (22 hrs. @ 200°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	50 max.	28

FLUID RESISTANCE – ASTM Fuel C – EF31, ASTM D 471(70 hrs. @ 23°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	+/- 10	-2
Tensile Strength Change, %	-25 max.	-21
Ultimate Elongation Change, %	-20 max.	-1.5
Volume Change, %	0 to 10	+2.7

LOW TEMPERATURE RESISTANCE	ASTM D2000 Requirements	Typical Test Results
Brittleness @ -25° C	Non-Brittle	Pass

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 Fluorel® is a registered trademark of Dyneon