

Marco Compound # V1005

75 Durometer, Black, AMS-R-83485 & MIL-R-83485/1 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 sales@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 to 437°F (-40 to 225°C)

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

Specification:

AMS-R-83485 Type 1 and MIL-R-83485/1

PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	Specification Requirements	Typical Test Results
Hardness, Shore A, ASTM D2240	75 +/- 5	75
Color	Black	Black
Tensile Strength, psi, ASTM D412	1,600min.	2,000
Ultimate Elongation, %, ASTM D412	120 Min.	200

HEAT RESISTANCE – ASTM D 573 (70 hrs. @ 528°F)	Specification Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	+5 (max)	-2
Tensile Strength Change, %, ASTM D412	-35 (max)	-29
Ultimate Elongation Change, %, ASTM D412	-25 (max)	-5
Weight loss, %, ASTM D297	-12 (max.)	-6

COMPRESSION SET – B38, ASTM D 395 Method B and ASTM D1414	Specification Requirements	Typical Test Results
% Permanent set, 70 hrs. @ 75° F	25 (max)	6
% Permanent set, 166 hrs. @ 347° F	25 (max)	17
% Permanent set, 22 hrs. @ 392° F	20 (max)	10

TT-S-735 TTYPE III FUEL IMMERSION – ASTM D 471 and ASTM D1414 (22 hrs. @ 75°F)	Specification Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	+/- 5	-1
Tensile Strength Change, %, ASTM D412	-30 (max)	-6
Ultimate Elongation Change, %, ASTM D412	-20 (max)	-10
Volume Change, %, ASTM D471	0 to + 10	+2

AMS 3021 FLUID IMMERSION – ASTM D 471 and ASTM D1414 (70 hrs. @ 392°F)	Specification Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	-15 to + 0	-5
Tensile Strength Change, %, ASTM D412	-35 (max)	-23
Ultimate Elongation Change, %, ASTM D412	-20 (max)	-10
Volume Change, %, ASTM D412	1 to + 20	+14

COMPRESSION SET – ASTM D395 Method B and ASTM D1414 70 hours @ 391° F in AMS 3021 Fluid	Specification Requirements	Typical Test Results
% Permanent set	10 (max)	0

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Fluorel® is a registered trademark of Dyneon.