



G-M-I, Inc. Product Data Sheet Rubber Polymers (Elastomers)

Compound: FKM (Viton® A)
Curing Agent: Bisphenol "AF"

No.	Durometer Shore A	VX55	VX70	VX90
	X = Color*			

Physical Properties:

Test Method	Property	Specification			Typical		
		55	70	90	55	70	90
ASTM D-2240	Durometer Hardness Shore A, Points	55±5	70±5	90±5	59	72	90
ASTM D-412	Tensile Strength (Yield Stress), Min. PSI / mPa	1015/7	1450/10	1015/7	1269/9	2050/13	1501/10
ASTM D-412	Ultimate Elongation, % Min	200	175	100	297	207	150
ASTM D-297	Specific Gravity (Density), lb/ft³ / kg/m³,	55A	1.90±.10/30.6±1.6		1.86/30.0	---	---
		70A	2.00±.15/32.2±2.4		---	1.94/31.3	---
		90A	2.30±.20/37.0±2.0		---	---	2.32/37.4
ASTM D-624	Tear Resistance Die B, Min. PPI / N/mm	29/5			26/5	26/5	26/5
ASTM D-395	Compression Set, 22 hrs at 175°C, % Max.	35			6	6	9
ASTM D-573	Heat Aged, 70 hrs at 250°C: Hardness Change, Pts Tensile Strength Change, % Max. Ultimate Elongation Change, % Max.	±15			+8	+6	+3
		±30			+4	+3	+3
		-50			-40	-29	-36
ASTM D-471	Water Resistance, 70 hrs at 100°C: Hardness Chg Pts Volume Change, % Max.	±5			+2	+1	+1
		±5			+5	+3	+4
ASTM D-412	Modulus;	50%, PSI/mPa	---		181/1	369/3	848/6
		100%, PSI/mPa	---		265/2	717/5	1324/9
		200%, PSI/mPa	---		671/4	1804/13	---
Temperature Range	0/+400°F (-18/+204°C)						
Shelf Life	Maximum Storage Life: Unlimited per SAE ARP5316 Rev D and 20 Years per MIL-HDBK-695F.						

*Colors: A = Gray, B = Black, G = Green, K = Khaki, L = Purple, N = Brown, O = Orange, R = Red, U = Blue, W = White and Y = Yellow.

Applications:

FKM (Viton®/Fluoroelastomer) provides premium performance and long term reliability in extremely corrosive and severe environments. Its exceptional resistance to aging, heat and a broad range of chemicals, fuels and solvents make it ideal for many demanding applications. It has excellent resistance to oxygen, ozone and sunlight and is more flame retardant than hydrocarbon rubbers. Viton® is a DuPont Trademark.

Standards/Regulations, Independently Tested and Certified Compliant:

Standard/Regulation	Description
ISO 9001	Quality Management System
US Food and Drug Administration	Title 21, Part 177, SubPart C, Sec. 177.2600, Substances for Use Only as Components of Articles Intended for Repeated Use in Food, CITE: 21CFR177.2600.
USDA	US FSIS (Food Safety Inspection Service) per the FDA 21CFR7.12 and 21CFR7.13 Regulations for Direct and Incidental Food Contact Materials for Intended Use as Specified in the above FDA 21CFR177.2600 Regulations.
3-A Sanitary Standards	Multiple Use-Rubber and Rubber-Like Materials Used as Product Contact Surfaces in Dairy Equipment, 18- . Authorization No.: 1294.
USDA, NSF/3-A/ANSI 14159-3-2005	Standards for the Sanitary and Hygiene Design and Fabrication of Dairy Processing Equipment.
EU 1935/2004(03)EC	Food Contact Regulations, excluding Organoleptic (Sensory) testing.
US Pharmacopeia	USP Class VI, 2004; USP 27, NF 22, 2004, <88> Biological Reactivity, <i>In Vivo</i> . USP MEM Cytotoxicity, 2004; USP 27, NF 22, 2004, <87> Biological Reactivity, <i>In Vitro</i> . Compounds: VB70 & VW70
US FDA 9CFR94.18, FDA 21CFR589, US Pharmacopeia Vol 30<5>, EU 2004/C 24/03, EU 2002/195/EC, EU EMEA/410/01, CPMP/QWP/227/02, CVMP/134/02 & CVMP/145/197	AH/TSE Free™ Animal and Human / Transmissible Spongiform Encephalopathy Free (Animal and Human Derived Ingredient Free)
EU RoHS Directive 2002/95/EC	Restrictive Substances, EIA Material Composition Annex A: Level A Materials, Table I & Table II.
China RoHS Directive SJ/T11363-2006	Hazardous Substances, Table I.
CODEX Std 192-1995	Not yet listed.

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Rev 20190501

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