



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

Compound: VMQ (Silicone)
Curing Agent: Peroxide

No.	SX50	SX70
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X = Color*

Physical Properties:

Test Method	Property	50 Durometer		70 Durometer	
		Specification	Typical	Specification	Typical
ASTM D-2240	Durometer Hardness Shore A, Points	50±5	50	70±5	72
ASTM D-412	Tensile Strength (Yield Stress), Min. PSI / mPa	870/6	1324/10	870/6	1068/7
ASTM D-412	Ultimate Elongation, % Min	250	610	150	209
ASTM D-297	Specific Gravity (Density), lb/ft ³ / kg/m ³	1.16±.03/18.7±.5	1.17/18.7	1.20±.03/19.3±.5	1.20/19.3
ASTM D-624	Tear Resistance Die B, Min. PPI / N/mm	51/9	92/16	51/9	76/13
ASTM D-395	Compression Set, 22 hrs at 175°C, % Max.	50	21	50	7
ASTM D-573	Heat Aged, 70 hrs at 225°C: Hardness Change, Pts Tensile Strength Change, % Max. Ultimate Elongation Change, % Max.	±15	+6	±15	+4
		±30	-19	±30	-17
		-50	-25	-50	-24
ASTM D-471	Water Resistance, 70 hrs at 100°C: Hardness Chg Pts Volume Change, % Max.	±5	-2	±5	0
		±5	0	±5	0
ASTM D-412	Modulus;	100%, PSI/mPa	---	108/1	---
		200%, PSI/mPa	---	313/2	---
		300%, PSI/mPa	---	640/4	---
Temperature Range	-65/+400°F (-54/+204°C).				
Shelf Life	Maximum Storage Life: Unlimited per SAE ARP5316 Rev C 2010-12, 20 Years per MIL-HDBK-695E 20/October/2011.				

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

Applications:

VMQ (Silicone) features excellent resistance to oxidation, ozone and sunlight and is very color stable. It maintains excellent flexibility at low temperatures, has outstanding resistance to high heat, low compression set and is a very good electrical insulator. It is not recommended for applications that require resistance to abrasion, acids, alkalis, cut growth, gasoline, high tensile strength, oils and tear growth.

Standards/Regulations, Independently Tested and Certified Compliant:

Standard/Regulation	Description
ISO 9001:2008	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, Class II, III and IV.
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.
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> .
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/TI 1363-2006	Hazardous Substances, Table I.
CODEX Std 192-1995	Not yet listed.

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