



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

Compound: EPDM
Curing Agent: Sulfur

No.	EXS50	EXS70
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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	70	
ASTM D-412	Tensile Strength (Yield Stress), Min. PSI / mPa	1015/7	1193/8	1305/9	1410/10	
ASTM D-412	Ultimate Elongation, % Min	350	553	225	341	
ASTM D-297	Specific Gravity (Density), lb/ft ³ / kg/m ³	1.13±.02/18.2±.3	1.13/18.3	1.18±.02/19.0±.3	1.19/19.1	
ASTM D-624	Tear Resistance Die B, Min. PPI / N/mm	100/18	118/21	150/26	155/27	
ASTM D-395	Compression Set, 22 hrs at 100°C, % Max.	50	44	50	40	
ASTM D-573	Heat Aged, 70 hrs at 100°C: Hardness Change, Pts Tensile Strength Change, % Max. Ultimate Elongation Change, % Max.	±15	+9	±15	+8	
		±30	+8	±30	+11	
		-50	-41	-50	-36	
ASTM D-471	Water Resistance, 70 hrs at 100°C: Hardness Chg Pts Volume Change, % Max.	±15	+4	±5	+3	
		±15	+4	±5	+3	
ASTM D-412	Modulus;	100%, PSI/mPa	---	168/1	---	269/2
		200%, PSI/mPa	---	222/1	---	482/3
		300%, PSI/mPa	---	417/3	---	579/4
Temperature Range	-20/+230°F (-29/+110°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, G = Green, K = Khaki, L = Purple, N = Brown, O = Orange, R = Red, U = Blue, W = White and Y = Yellow.						

Applications:

EPDM has excellent aging, ozone and weather resistance. It also has excellent steam and water resistance, maintains its flexibility at low temperatures, features excellent resistance to acids, alkalis and oxygenated solvents and is very color stable. It is not recommended for resistance to gasoline, hydrocarbon solvents and oils. It is found in a very broad range of applications and is excellent for outdoor applications.

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, 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/T11363-2006	Hazardous Substances, Table I.
CODEX Std 192-1995	Not yet listed.

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Rev. 04/2013