

GMORS[®]
Seals to your heart

Compound Offering Guide



Table of Contents

/1/ About GMORS

/2/ GMORS Code Principles

/3/ Material Comparison Table

/4/ Compatibility Table

/6/ Physical Properties

/8/ Aging Test

Disclaimer: This document's content is the result of material properties. Some information may change over time, becoming inaccurate or incomplete. GMORS does not guarantee that the information provided in this document is the most current, accurate, or complete, and it may not align with the measurement results of finished parts.



About GMORS

From its start in 1986, GMORS has grown to become a recognized multi-national leader in the production of O-Rings and a wide variety of elastomeric sealing devices and products. Our company has more than 1850 employees operating in three ISO certified factories located in Taiwan, China and Thailand.

GMORS' chemists work with many different polymers to formulate high performance elastomeric compounds. All of the elastomeric materials used in our products are compounded and produced in-house.

GMORS is committed to supplying its customers with the highest quality products manufactured efficiently as possible. Our products can be found in numerous critical applications in the aerospace, automotive, CPI, industrial, Oil & Gas, pharmaceutical and semiconductor industries. We are dedicated to meeting each of our customer's current and future needs with exceptional product solutions and service.

In-house Laboratory

To react promptly to customer's need for research and development, GMORS develops in-house laboratory and chemical engineers to design, mix and test rubber recipe. GMORS laboratory is equipped with advanced testing equipments and knowledgeable engineers. Moreover, GMORS laboratory follows rigorous procedures, which are certified by TAF (ISO17025). According to ASTM requirements, "TGA", "FTIR" and "3 Sigma" standard deviation measures are used to check the performance of mixing quality per batch for quarterly or annual revalidation.

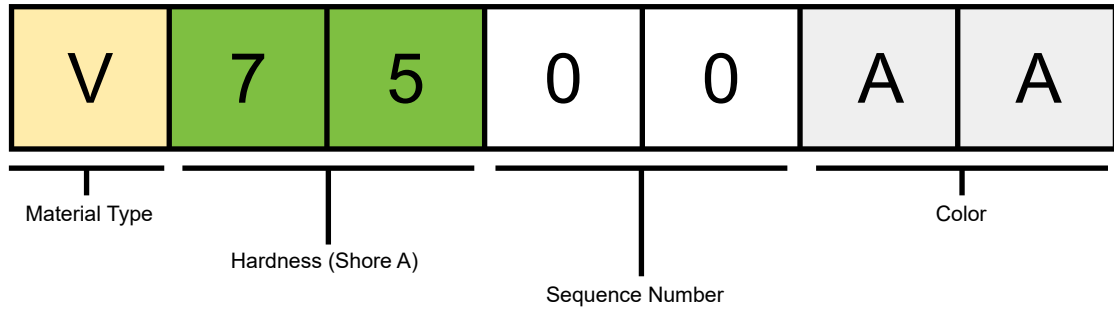


Quality System



GMORS Material

GMORS Code Principles



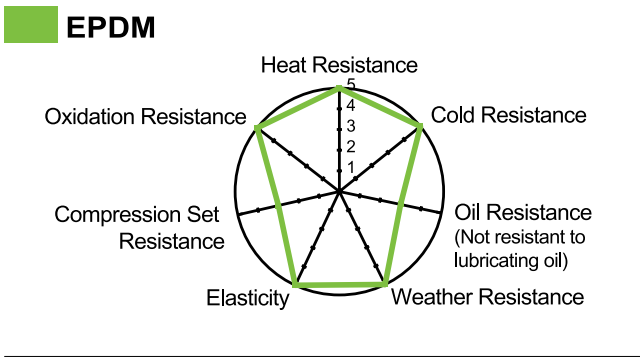
Material Type			
A	NR, Natural Rubber	H	HNBR
B	SBR	N	NBR
C	CR, Neoprene	S	SILICONE
E	EPDM	V	FKM
F	FLUOROSILICONE	X	XNBR
G	AEM		

Hardness (Shore A)	
30	Hardness 30±5
40	Hardness 40±5
50	Hardness 50±5
60	Hardness 60±5
70	Hardness 70±5
75	Hardness 75±5
80	Hardness 80±5
90	Hardness 90±5
95	Hardness 95±5

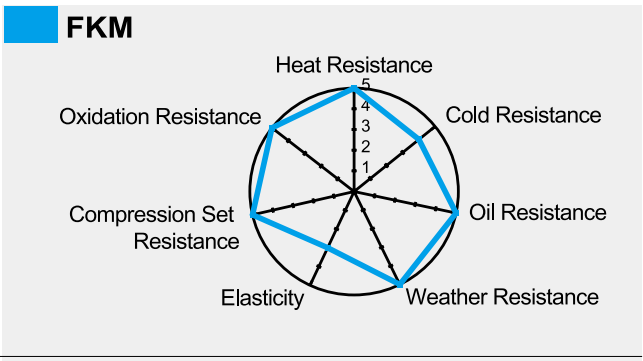
Color		
AA	BLACK	
AB	RUST , RED BROWN	
AC	DARK BROWN	
AD	LIGHT BROWN	
AE	GREEN	
AK	RED	
AR	YELLOW	
AY	CLEAR, TANSSPARENT	
BU	BLUE	

Material Comparison Table

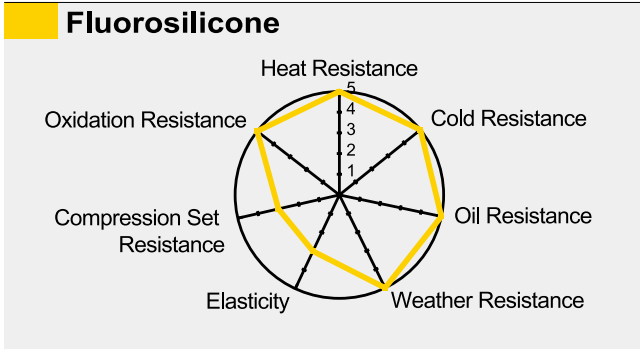
Material	EPDM	FKM	Fluorosilicone	HNBR	NBR	Silicone
Abbreviation	EPDM	FKM	FVMQ	HNBR	NBR	VMQ
Standard Temp.	-55°C to 125°C	-25°C to 250°C	-60°C to 175°C	-40°C to 150°C	-40°C to 100°C	-60°C to 225°C
Special Compound Temp.	-60°C to 150°C	-40°C to 275°C	-65°C to 230°C	-55°C to 165°C	-55°C to 135°C	-100°C to 250°C
Hardness Range	40-90 Shore A	50-90 Shore A	40-80 Shore A	50-90 Shore A	40-90 Shore A	30-80 Shore A
Chemical Resistance	Excellent resistance to acids, alkalis, and steam	Excellent resistance to most chemicals and solvents	Good resistance to fuels, oils, and most solvents	Excellent resistance to oils and fuels	Excellent resistance to oils and fuels	Good resistance to acids, alkalis, and aqueous solutions
Applications	Automotive Seals, Cooling Systems, Braking Systems	Aerospace, Automotive, Chemical Industry	Aerospace, Automotive, Fuel Systems	Automotive, Oil And Gas Industry Seals	Automotive Fuel Systems, Industrial Seals	Medical Devices, Food Contact, Electronic Seals
Relative Cost	Medium	Expensive	High	High	Low	Medium



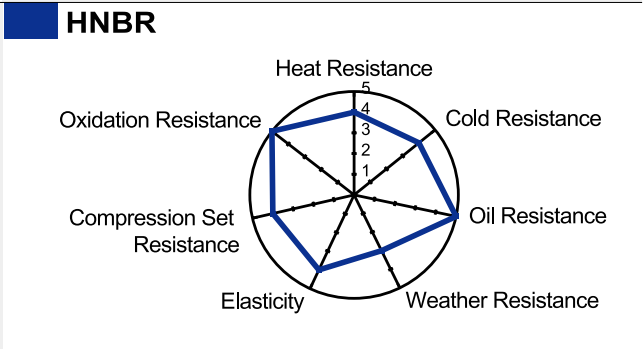
EPDM Ethylene Propylene Diene Monomer Copolymer of ethylene, propylene, and a small amount of non-conjugated diene.



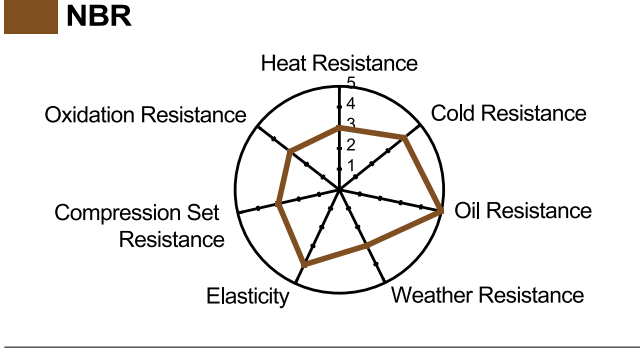
FKM Fluorocarbon Rubber Copolymer of fluorinated olefins and other monomers.



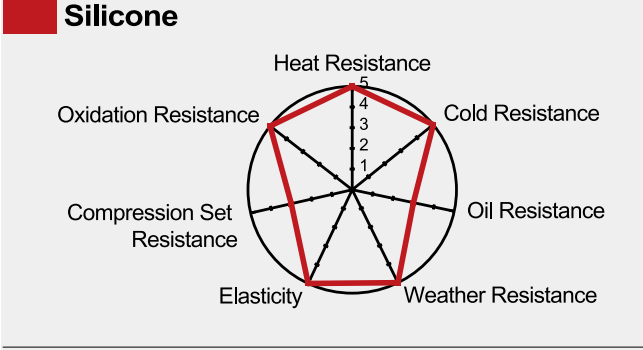
Fluorosilicone Fluoro Vinyl Methyl Siloxane Copolymer of siloxane and fluorinated alkyl groups.



HNBR Hydrogenated Nitrile Butadiene Rubber Copolymer of acrylonitrile and hydrogenated butadiene.



NBR Nitrile Butadiene Rubber Copolymer of acrylonitrile and butadiene.



Silicone Polysiloxane Copolymer of siloxane and methyl or ethyl groups.

Compatibility Table

Medium		GMORS Code	N7034AA	N7096AA	N8614AA	N9000AA	N9020AA	H7000AA	H7000AE
Lubricant oil	Engine oil		■	■	■	■	■	■	■
	Gear oil		■	■	■	■	■	■	■
	Machine oil		■	■	■	■	■	■	■
	Spindle oil		■	■	■	■	■	■	■
	Freezer oil (mineral oil)		●	●	●	●	●	●	●
	Cup grease		■	■	■	■	■	■	■
	Lithium grease		-	-	-	-	■	■	■
	Silicone grease		■	■	■	■	■	■	■
Hydraulic oil	Turbine oil		■	■	■	■	■	■	■
	Oil & water emulsion		■	■	■	■	■	■	■
	Water & glycol		●	●	●	●	●	●	●
	Phosphate ester oil		✗	✗	✗	✗	✗	✗	✗
	Silicone oil		■	■	■	■	■	■	■
	Brake fluid		▲	▲	▲	▲	▲	▲	▲
	Torque converter oil		▲	▲	▲	▲	▲	▲	▲
Fuel	Diesel fuel/kerosene		▲	▲	▲	▲	▲	▲	▲
	Heavy oil		▲	▲	▲	▲	▲	▲	▲
	Gasoline		▲	▲	▲	▲	▲	▲	▲
Water	60°C or less		●	●	●	●	■	■	■
	100°C or less		▲	▲	▲	▲	●	●	●
	150°C or less		✗	✗	✗	✗	✗	✗	✗
Coolant	Water w/ antifreeze (LLC)		●	●	●	●	●	●	●
	Water-based machining oil		●	●	●	●	●	●	●
Chemical	20% hydrochloric acid solution		▲	▲	▲	▲	▲	▲	▲
	30% sulfuric acid solution		●	●	●	●	●	●	●
	10% nitric acid solution		✗	✗	✗	✗	✗	✗	✗
	30% sodium hydroxide solution		■	■	■	■	■	■	■
	Benzene		✗	✗	✗	✗	✗	✗	✗
	Trichloroethylene		✗	✗	✗	✗	✗	✗	✗
	Alcohol		●	●	●	●	●	●	●
	Ethylene glycol		■	■	■	■	■	■	■
	Acetone		✗	✗	✗	✗	✗	✗	✗
Gas	LPG		●	●	●	●	●	●	●
	Town gas		●	●	●	●	●	●	●
	Ozone (atmospheric)		✗	✗	✗	✗	●	●	●
	Freon gas R134a		✗	✗	✗	✗	●	●	●
Other	Vacuum atmosphere to 10 ⁻⁴ mmHg		■	■	■	■	■	■	



■ Resistant ● Resistant except in specific conditions* ▲ Not resistant except in specific conditions* ✗ Not resistant - Insufficient data
 (*:Consult with GMORS before use.)

E7010AA	E7050AA	E7070AI	E4070AI02	S7000AB	F7004BU02	V7500AA	V7500AC	GMORS Code / Medium
×	×	×	×	▲	▲	●	●	Engine oil
×	×	×	×	▲	▲	●	●	Gear oil
×	×	×	×	●	●	■	■	Machine oil
×	×	×	×	▲	▲	■	■	Spindle oil
×	×	×	×	▲	▲	■	■	Freezer oil (mineral oil)
×	×	×	×	▲	▲	■	■	Cup grease
×	×	×	×	■	■	■	■	Lithium grease
●	●	●	●	×	▲	■	■	Silicone grease
×	×	×	×	●	●	●	●	Turbine oil
▲	▲	▲	▲	▲	▲	▲	▲	Oil & water emulsion
■	■	■	■	▲	▲	▲	▲	Water & glycol
■	■	■	■	●	●	■	■	Phosphate ester oil
■	■	■	■	×	▲	■	■	Silicone oil
▲	▲	■	■	●	●	▲	▲	Brake fluid
×	×	×	×	▲	▲	●	●	Torque converter oil
×	×	×	×	×	●	■	■	Diesel fuel/kerosene
×	×	×	×	×	●	■	■	Heavy oil
×	×	×	×	×	●	■	■	Gasoline
■	■	■	■	●	●	■	■	60°C or less
■	●	■	■	●	●	●	●	100°C or less
●	●	●	●	×	×	×	×	150°C or less
■	■	■	■	▲	▲	▲	▲	Water w/ antifreeze (LLC)
▲	▲	▲	▲	▲	▲	▲	▲	Water-based machining oil
■	■	■	■	▲	▲	●	●	20% hydrochloric acid solution
■	■	■	■	●	●	●	●	30% sulfuric acid solution
●	●	●	●	×	×	▲	▲	10% nitric acid solution
■	■	■	■	×	×	×	×	30% sodium hydroxide solution
×	×	×	×	×	×	▲	▲	Benzene
×	×	×	×	▲	×	▲	▲	Trichloroethylene
■	■	■	■	●	●	●	●	Alcohol
■	■	■	■	■	■	■	■	Ethylene glycol
●	●	●	●	▲	▲	×	×	Acetone
×	×	×	×	×	×	■	■	LPG
▲	▲	▲	▲	▲	▲	■	■	Town gas
■	■	■	■	■	■	■	■	Ozone (atmospheric)
●	▲	●	●	×	×	×	×	Freon gas R134a
-	-	-	-	-	-	■	■	Vacuum atmosphere to 10 ⁻⁴ mmHg

Physical Properties

GMORS manufacturing process adheres to RoHS2, REACH SVHC, and ADI FREE regulations.



Material	NBR					HNBR	
GMORS Code	N7034AA	N7096AA	N8614AA	N9000AA	N9020AA	H7000AA	H7000AE
Cure System	Sulfur	Sulfur	Sulfur	Sulfur	Peroxide	Peroxide	Peroxide
Hardness (Shore A)	70	70	90	90	90	70	70
Color	Black	Black	Black	Black	Black	Black	Green
Dynamic Service Temp.	125°C -30°C	100°C -30°C	125°C -30°C	100°C -25°C	125°C -25°C	150°C -30°C	150°C -30°C
Static Service Temp.	125°C -40°C	100°C -40°C	125°C -40°C	100°C -40°C	125°C -30°C	150°C -40°C	150°C -40°C
Tensile Strength, psi (MPa)	2766 (19.08)	2547 (17.57)	2346 (16.18)	2290 (15.79)	3563 (24.57)	3783 (26.09)	2830 (19.52)
Elongation, %	351	288	174	133	95	293	318
100% Modulus, psi (MPa)	592 (4.08)	816 (5.63)	1593 (10.99)	1892 (13.05)	1747 (12.05)	768 (5.30)	996 (6.87)
"Compression Set Temp. and Time ASTM D395 Method B"	22 Hrs @ 100°C	22 Hrs @ 100°C	22 Hrs @ 100°C	22 Hrs @ 100°C	70 Hrs @ 125°C	22 Hrs @ 150 °C	22 Hrs @ 150 °C
Compression Set, %	4.4	9	9.2	5.8	13.9	11.0	12.3
Major Usage Examples	High temperature and low compression set.	General use.	High temperature.	General use.	Low compression set.	General use.	General use.
Features		Widely used as a sealing material for various products.		Widely used as a sealing material for various products.	Super NBR	Superior to NBR in terms of heat and oil resistance, mechanical strength, compression set.	
Certifications							
Specification	JIS B2401 1A		JIS B2401 1B	JIS B2401 1B			







Material Certified

Materials for Extreme Applications

GMORS Laboratory offers services from compound design and prototyping to physical and chemical testing, ensuring our materials meet your needs. For certified material reports on oil and gas, drinking water, and pharmaceutical applications, visit www.gmors.com/certification



EPDM				SILICONE	FLUROSILICONE	FKM	
E7010AA	E7050AA	E7070AI	E4070AI02	S7000AB	F7004BU02	V7500AA	V7500AC
Peroxide	Sulfur	Peroxide	Peroxide	Peroxide	Peroxide	Bisphenol	Bisphenol
70	70	70	40	70	70	75	75
Black	Black	Purple	Purple	Rust	Light Blue	Black	Dark Brown
130°C -40°C	100°C -45°C	150°C -50°C	150°C -50°C	200°C -55°C	200°C -55°C	250°C -15°C	250°C -15°C
150°C -55°C	100°C -55°C	150°C -55°C	150°C -55°C	225°C -55°C	200°C -60°C	250°C -25°C	250°C -25°C
1733 (11.95)	1644 (11.34)	1836 (12.66)	1505 (10.38)	888 (6.12)	1030 (7.10)	2077 (14.32)	2250 (15.52)
252	333	219	712	202	222	175	205
653 (4.50)	782 (5.39)	656 (4.52)	118 (0.81)	665 (4.59)	552 (3.81)	1125 (7.76)	1321 (9.11)
22 Hrs @ 150°C	22 Hrs @ 70°C	22 Hrs @ 150°C	24 Hrs @ 150°C	22 Hrs @ 175°C	22 Hrs @ 175°C	22 Hrs @ 200°C	22 Hrs @ 200°C
18.3	8.2	11.5	12.9	20.9	18.5	8.1	12.0
General use.	General use.	EV	EV	General use.	General use.	General use.	General use.
Possesses excellent ozone and heat resistant properties.	Possesses excellent ozone properties.	Having superior coolant resistance and low temperature.		Heat and cold resistance.	Superior to VMQ in terms of fuel resistance.	Among the synthetic rubber materials, it possesses the best heat, oil resistant properties.	
							
				AMS3304 JIS B2401 4C	MIL-R-25988 Type1 Class1 Grade70		



Contacts

Can't find a compound that fits your requirements?

Contact us at

inquiry@gmors.com

NBR Aging Test

Tested		N7034AA				N7096AA			
Heat age ASTM D573	Temp. and Time	70 Hrs @ 100 °C				70 Hrs @ 100 °C			
	Requirements / Results	Requirements		Results		Requirements		Results	
	Hardness Change, pts.	±15		+2		±15		+3	
	Tensile Strength Change, %	±30		+4		±30		+2	
	Elongation Change, %	-50(max)		-8		-50(max)		-12	
	Weight Change, %			-0.3				-1.1	
Heat age ASTM D865	Temp. and Time	70 Hrs @ 125 °C				-			
	Requirements / Results	Requirements		Results		-		-	
	Hardness Change, pts.	0~+15		+2		-		-	
	Tensile Strength Change, %	-25(max)		+6		-		-	
	Elongation Change, %	-50(max)		-16		-		-	
	Weight Change, %			-0.1		-		-	
Water resistance ASTM D471	Temp. and Time	70 Hrs @ 100 °C				70 Hrs @ 100 °C			
	Requirements / Results	Requirements		Results		Requirements		Results	
	Hardness Change, pts.	±10		-4		±10		-4	
	Tensile Strength Change, %			-3				-2	
	Elongation Change, %			-10				-11	
	Volume Change, %	±15		+6.6		±15		+5.6	
Oil Resistance 1 ASTM D471	Tested	ASTM Fuel A		ASTM Fuel B		ASTM Fuel A		ASTM Fuel B	
	Temp. and Time	70 Hrs @ 23 °C		70 Hrs @ 23 °C		70 Hrs @ 23 °C		70 Hrs @ 23 °C	
	Requirements / Results	Requirements	Results	Requirements	Results	Requirements	Results	Requirements	Results
	Hardness Change, pts.	±10	-1	-30~0	-13	±10	-1	-30~0	-13
	Tensile Strength Change, %	-25(max)	-9	-60(max)	-45	-25(max)	-7	-60(max)	-35
	Elongation Change, %	-25(max)	-10	-60(max)	-44	-25(max)	-8	-60(max)	-35
	Volume Change, %	-5~+10	+1.4	0~+40	+33.5	-5~+10	+1.1	0~+40	+24
Oil Resistance 2 ASTM D471	Tested	IRM 901 Oil		IRM 903 Oil		IRM 901 Oil		IRM 903 Oil	
	Temp. and Time	70 Hrs @ 150 °C		70 Hrs @ 150 °C		70 Hrs @ 100 °C		70 Hrs @ 100 °C	
	Requirements / Results	Requirements	Results	Requirements	Results	Requirements	Results	Requirements	Results
	Hardness Change, pts.	0~+10	+2	±10	-8	-10~+5	+8	-10~+5	+2
	Tensile Strength Change, %	-20(max)	-8	-35(max)	-8	-45(max)	+4	-45(max)	+4
	Elongation Change, %	-40(max)	-27	-35(max)	-17	-45(max)	-11	-45(max)	-13
	Volume Change, %	-15~+5	-3.6	0~+25	+10.5	0~+25	-9.9	0~+25	+0.1
Low Temp. ASTM D1329	TR10 at Elongation 50%, °C	-26.2				-16.1			

NBR Aging Test

Tested		N8614AA		N9000AA					
Heat age ASTM D573	Temp. and Time	-		70 Hrs @ 100 °C					
	Requirements / Results	-		Requirements	Results				
	Hardness Change, pts.	-		±15	0				
	Tensile Strength Change, %	-		±30	+1				
	Elongation Change, %	-		-50(max)	-18				
	Weight Change, %	-			-0.5				
Heat age ASTM D865	Temp. and Time	70 Hrs @ 125 °C		-					
	Requirements / Results	Requirements	Results	-					
	Hardness Change, pts.	0~+15	+7	-					
	Tensile Strength Change, %	-25(max)	-3	-					
	Elongation Change, %	-50(max)	-46	-					
	Weight Change, %		-0.3	-					
Water resistance ASTM D471	Temp. and Time	-		70 Hrs @ 100 °C					
	Requirements / Results	-		Requirements	Results				
	Hardness Change, pts.	-		±10	-2				
	Tensile Strength Change, %	-			+4				
	Elongation Change, %	-			-11				
	Volume Change, %	-		±15	+5.2				
Oil Resistance 1 ASTM D471	Tested	-		ASTM Fuel A	ASTM Fuel B				
	Temp. and Time	-		70 Hrs @ 23 °C	70 Hrs @ 23 °C				
	Requirements / Results	-		Requirements	Results	Requirements	Results		
	Hardness Change, pts.	-		±10	+1	-30~0	-14		
	Tensile Strength Change, %	-		-25(max)	-4	-60(max)	-34		
	Elongation Change, %	-		-25(max)	-7	-60(max)	-32		
	Volume Change, %	-		-5~+10	+0.4	0~+40	+18.6		
Oil Resistance 2 ASTM D471	Tested	IRM 901 Oil		IRM 903 Oil		IRM 901 Oil		IRM 903 Oil	
	Temp. and Time	70 Hrs @ 125 °C		70 Hrs @ 125 °C		70 Hrs @ 100 °C		70 Hrs @ 100 °C	
	Requirements / Results	Requirements	Results	Requirements	Results	Requirements	Results	Requirements	Results
	Hardness Change, pts.	0~+10	+5	±10	-6	-5~+5	+3	-10~+5	-3
	Tensile Strength Change, %	-20(max)	-6	-15(max)	+1	-25(max)	-4	-45(max)	-4
	Elongation Change, %	-35(max)	-31	-30(max)	-26	-45(max)	-11	-45(max)	-25
	Volume Change, %	-15~+5	-2.5	0~+25	+9.2	-10~+5	-2.2	0~+25	+5.2
Low Temp. ASTM D1329	TR10 at Elongation 50%, °C	-27.3		-22.6					

NBR Aging Test

Tested		N9020AA			
Heat age ASTM D865	Temp. and Time	70 Hrs @ 125°C			
	Requirements / Results	Requirements		Results	
	Hardness Change, pts.	±15		+1	
	Tensile Strength Change, %	±30		+1	
	Elongation Change, %	-50(max)		-6	
	Weight Change, %	+0.3			
Oil Resistance ASTM D471	Tested	IRM 901 Oil		IRM 903 Oil	
	Temp. and Time	70 Hrs @ 125 °C		70 Hrs @ 125 °C	
	Requirements / Results	Requirements	Results	Requirements	Results
	Hardness Change, pts.	-5~+10	-1	-10~+5	-6
	Tensile Strength Change, %	-20(max)	+5	-35(max)	-7
	Elongation Change, %	-40(max)	-1	-35(max)	-6
	Volume Change, %	-4~+5	+0.4	0~+25	+10.7
Low Temp. ASTM D1329	TR10 at Elongation 50%, °C	-25.8			

HNBR Aging Test

Tested		H7000AA				H7000AE			
Heat age ASTM D865	Temp. and Time	70 Hrs @ 150 °C				70 Hrs @ 150 °C			
	Requirements / Results	Requirements		Results		Requirements		Results	
	Hardness Change, pts.	+10(max)		+5		+10(max)		+3	
	Tensile Strength Change, %	-25(max)		-1		-25(max)		-1	
	Elongation Change, %	-30(max)		-8		-30(max)		-13	
	Weight Change, %	-0.3				-0.3			
Oil Resistance ASTM D471	Tested	IRM 901 Oil		IRM 903 Oil		IRM 901 Oil		IRM 903 Oil	
	Temp. and Time	70 Hrs @ 150 °C		70 Hrs @ 150 °C		70 Hrs @ 150 °C		70 Hrs @ 150 °C	
	Requirements / Results	Requirements	Results	Requirements	Results	Requirements	Results	Requirements	Results
	Hardness Change, pts.	-5~+10	+3	-15(max)	-6	-5~+10	+1	-15(max)	-6
	Tensile Strength Change, %	-20(max)	+4	-30(max)	-10	-20(max)	-13	-30(max)	0
	Elongation Change, %	-30(max)	-6	-30(max)	-9	-30(max)	-8	-30(max)	-16
	Volume Change, %	±5	-3.4	+25(max)	+10.8	±5	-2.5	+25(max)	+11.5
Low Temp. ASTM D1329	TR10 at Elongation 50%, °C	-27.6				-24.2			

EPDM Aging Test

Tested		E7010AA		E7050AA		E7070AI		E4070AI02	
Heat age ASTM D573	Temp. and Time	-		-		-		70 Hrs @ 150°C	
	Requirements / Results	-		-		-		Requirements	Results
	Hardness Change, pts.	-		-		-		0~+5	+2
	Tensile Strength Change, %	-		-		-		-20(max)	+3
	Elongation Change, %	-		-		-		-20(max)	+3
	Weight Change, %	-		-		-		-1.1	
Heat age ASTM D865	Temp. and Time	70 Hrs @ 150°C		70 Hrs @ 150°C		70 Hrs @ 150°C		-	
	Requirements / Results	Requirements	Results	Requirements	Results	Requirements	Results	-	
	Hardness Change, pts.	+10(max)	+1	+10(max)	+3	+10(max)	0	-	
	Tensile Strength Change, %	-20(max)	-5	-20(max)	+10	-20(max)	-7	-	
	Elongation Change, %	-20(max)	-4	-40(max)	-34	-20(max)	-3	-	
	Weight Change, %	+0.6		+0.1		+0.1		-	
Water resistance ASTM D471	Temp. and Time	70 Hrs @ 100°C		70 Hrs @ 100 °C		70 Hrs @ 150°C		-	
	Requirements / Results	Requirements	Results	Requirements	Results	Requirements	Results	-	
	Hardness Change, pts.	-1		+1		0		-	
	Tensile Strength Change, %	-3		0		-15		-	
	Elongation Change, %	12		-22		+8		-	
	Volume Change, %	±5	+0.9	±5	+1.6	±5	+1.8	-	
Coolant Resistance ASTM D471	Tested	-		-		-		Coolant Resistance	
	Temp. and Time	-		-		-		72 Hrs @ 150°C	
	Requirements / Results	-		-		-		Requirements	Results
	Hardness Change, pts.	-		-		-		-3	
	Tensile Strength Change, %	-		-		-		-12	
	Elongation Change, %	-		-		-		+8	
	Volume Change, %	-		-		-		+4.6	
Low Temp. ASTM D1329	TR10 at Elongation 50%, °C	-41.9		-48.5		-50.9		-55.8	

SILICONE Aging Test

Tested		S7000AB	
Heat age ASTM D573	Temp. and Time	70 Hrs @ 225°C	
	Requirements / Results	Requirements	Results
	Hardness Change, pts.	+10(max)	+1
	Tensile Strength Change, %	-20(max)	+2
	Elongation Change, %	-20(max)	-27
	Weight Change, %		-2.0
Water resistance ASTM D471	Temp. and Time	70 Hrs @ 100°C	
	Requirements / Results	Requirements	Results
	Hardness Change, pts.	±5	0
	Tensile Strength Change, %		-3
	Elongation Change, %		-18
	Volume Change, %	±5	+2.9
Low Temp. ASTM D1329	TR10 at Elongation 50%, °C	-44.2	

FLUOROSILICONE Aging Test

Tested		F7004BU02	
Heat age ASTM D573	Temp. and Time	70 Hrs @ 225°C	
	Requirements / Results	Requirements	Results
	Hardness Change, pts.	+15(max)	+1
	Tensile Strength Change, %	-45(max)	-30
	Elongation Change, %	-45(max)	-22
	Weight Change, %		-0.9
Oil Resistance ASTM D471	Tested	ASTM Fuel C	
	Temp. and Time	70 Hrs @ 23 °C	
	Requirements / Results	Requirements	Results
	Hardness Change, pts.	-15~0	-11
	Tensile Strength Change, %	-60(max)	-7
	Elongation Change, %	-50(max)	-9
	Volume Change, %	0~+25	+21.2
Low Temp. ASTM D1329	TR10 at Elongation 50%, °C	-62.4	

FKM Aging Test

Tested		V7500AA				V7500AC			
Heat age ASTM D573	Temp. and Time	70 Hrs @ 250 °C				70 Hrs @ 250 °C			
	Requirements / Results	Requirements		Results		Requirements		Results	
	Hardness Change, pts.	+10(max)		+1		+10(max)		0	
	Tensile Strength Change, %	-25(max)		+2		-25(max)		+13	
	Elongation Change, %	-25(max)		-8		-25(max)		-23	
	Weight Change, %			-1.7				-2.3	
Oil Resistance 1 ASTM D471	Tested	ASTM Fuel C				ASTM Fuel C			
	Temp. and Time	70 Hrs @ 23 °C				70 Hrs @ 23 °C			
	Requirements / Results	Requirements		Results		Requirements		Results	
	Hardness Change, pts.	±5		-2		±5		-3	
	Tensile Strength Change, %	-25(max)		-19		-25(max)		-11	
	Elongation Change, %	-20(max)		-5		-20(max)		0	
	Volume Change, %	0~+10		+3.1		0~+10		+3.2	
Oil Resistance 2 ASTM D471	Tested	ASTM No. 101 Oil		IRM 903 Oil		ASTM No. 101 Oil		IRM 903 Oil	
	Temp. and Time	70 Hrs @ 200 °C		70 Hrs @ 150 °C		70 Hrs @ 200 °C		70 Hrs @ 150 °C	
	Requirements / Results	Requirements	Results	Requirements	Results	Requirements	Results	Requirements	Results
	Hardness Change, pts.	-15~+5	-6		-1	-15~+5	-6		0
	Tensile Strength Change, %	-40(max)	-16		-8	-40(max)	-15		+7
	Elongation Change, %	-20(max)	+1		-1	-20(max)	-11		-17
	Volume Change, %	0~+15	+9.5	+10(max)	+1.4	0~+15	+11.3	+10(max)	+0.6
Low Temp. ASTM D1329	TR10 at Elongation 50%, °C	-16.7				-16.1			

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