SaneZen Group

善 贞 集 团

产品介绍

Products Introduction

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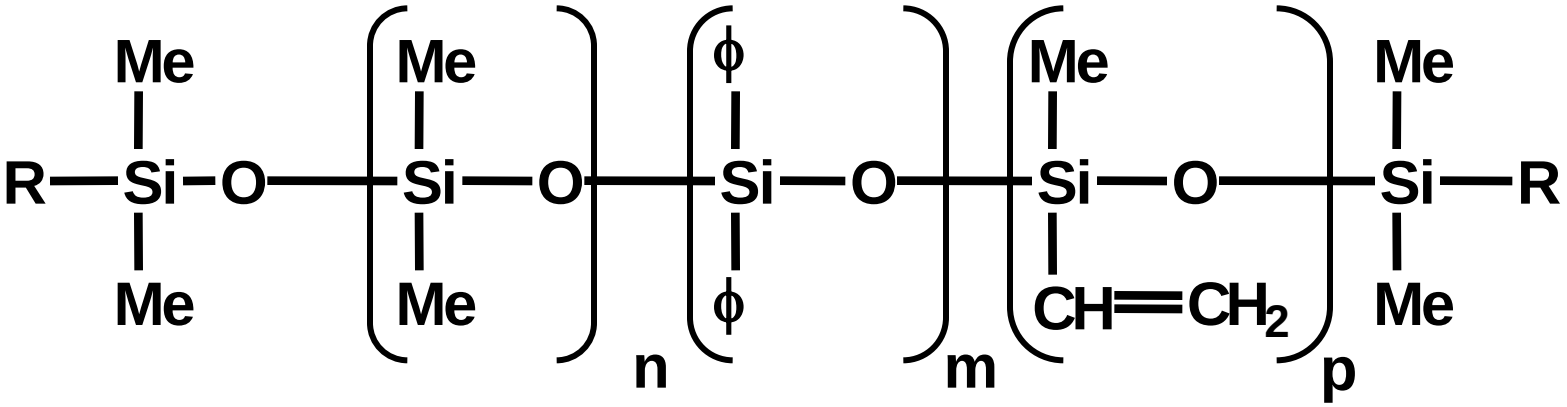
Mar 22, 2024

---- 橡胶解决方案的服务商

Rubber Solution Provider

进取Enterprising 高效Efficient 共赢Win-Win

GENERAL BACKBONE



R ⟶

- = - CH3 (Méthyl)

MQ Methyl-Silicone 甲基硅橡胶

= - CH=CH2 (Vinyl)

VMQ Vinyl-Methyl-Silicone 甲基乙烯基硅橡胶

- = - Ph

PVMQ Phenyl-Vinyl-Methyl-Silicone 苯基乙烯基甲基硅橡胶

- = - CH2-CH2-CF

FVMQ Fluoro-Vinyl-Methyl-Silicone 三氟丙基乙烯基甲基硅橡胶

Product	Feature
Expert in customized silicone rubber	
SR1XXU series	Economical general purpose with good balanced properties
SR2XXU series	General purpose with good balanced properties for extrusion process.
SR3XXU series	Platinum curing series with good balanced properties
SR4XXU series	Excellent physical properties,good processability
SR5XXU series	General purpose with good physical properties
SR7XXU series	Outstanding physical properties,good prcessability
SR8XXU series	High rebound and low compression set.
SR32XXUDP series	Phenyl silicone rubbers with good resistance to radiation and low & high temperature.
FS8200U series	Fluorosilicone rubber with good physical properties and extrusion performance.
FS2200U series	Fluorosilicone rubber with very low compression set and good oil resistance, moulding process
SR2200Useries	High resilience and good mechanical properties silicone rubber
SR2100UOR series	Excellent resistance to oil (low swelling). Excellent physical properties, Low compression set
SR32XXU series	High tear strength,excellent physical properties
SR33XXU series	Super high tear strength,excellent physical properties
SR64XXUFR series	Good flame retardancy,halogen-free,good physical properties
LSR61XX series	liquid silicone rubber with high clarity, good tear strength ,Economical grades
LSR71XX series	liquid silicone rubber with high clarity, high tear strength ,Excellent rebound resilience
LSR82XX series	liquid silicone rubber with high clarity, high tear strength ,Excellent rebound resilience with non-post curing
customized products	Our professional rubber senior engineers can provide tailor-made solutions according to your specific requirements (technical indicators, processes, costs, etc.)

General purpose silicone rubber –SR1/2/3XXU series

- **Product characteristics**
- Good balanced properties.
- Good appearance.
- Easy to process and demold, not sticky to rolls.
- Good stability up to 200℃.
- Slight replastification after prolonged storage.
- Wild range of reloading or blending.
- Bright colors easily obtained

General purpose silicone rubber –SR1/2/3XXU series

- **Product application:**

SR1XXU Series: It is suitable for molding articles requiring good balanced mechanical properties, such as keypad, sealing ring, O-Rings, and swimming caps. Offers good stability up to 200℃ and allows for a wide range of reloading or blending. Bright colors can be easily obtained

SR2XXU Series : It is suitable for extrusion processes, including seals, sheets, tubes, etc., as well as molded articles and calendered sheets. Offers general-purpose properties with good balance and is vacuum-packed for convenience.

SR3XXU Series: Suitable for molding, extrusion, and calendaring processes requiring platinum curing. Offers excellent operation time after adding a platinum curing agent. Ideal for various applications such as kitchenware, cables, seals, sheet, tube, etc.

Technical specifications – SR1/2/3XXU series

SR Siliconne Rubber Series	Grade	Hardness Shore A	Density D(g/cm3)	Tensile Strength(Mpa) ASTM D412	Elongation (%)ASTM D412	Tear Strength TS(KN/mm) Die B	Compress Set(%) (22h/177° C/25%) ASTM D 395 B	Rebound (%) ISO 4662
SR1XXU	SR130U	29	1.08	8	712	13	-	73.2
	SR140U	41	1.13	6.9	534	14	-	73.3
	SR150U	51	1.17	8.3	420	16	-	65.9
	SR160U	59	1.19	8.8	356	18	-	59.6
	SR170U	70	1.21	8.1	248	20	-	56.6
SR2XXU	SR230U	31	1.09	7.1	690	12	-	73.9
	SR240U	41	1.13	8.1	587	14	-	70.3
	SR250U	50	1.17	9	390	17	-	68.5
	SR260U	59	1.19	9.2	332	16	-	59.9
	SR270U	69	1.21	8.6	238	18	-	56.5
	SR280U	79	1.23	7.7	186	16	-	52
SR3XXU	SR340U	39	1.13	6.9	562	13	-	70.1
	SR350U	50	1.16	7.2	430	14	-	64.9
	SR360U	59	1.19	6.8	348	16	-	57.5
	SR370U	71	1.12	8.2	248	18	-	56.5
	SR380U	80	1.23	7.1	202	17	-	55.2

Good mechanical properties silicone rubber –SR4/5XXU series

➢ Product characteristics

SR4XXU Series : Suitable for molding articles requiring excellent mechanical properties and appearance. Offers excellent mechanical properties with slight replastification after prolonged storage. Ideal for applications where good mechanical properties and appearance are essential.

SR5XXU Series: Suitable for molding articles requiring good mechanical properties and appearance. Offers good mechanical properties, excellent appearance, and easy processing and demolding. Not sticky to rolls. Provides good stability up to 200℃ with no post-cure or slight post-cure needed.

Technical specifications –SR4/5XXU series

SR Silicone Rubber Series	Grade	Hardness Shore A	Density D(g/cm3)	Tensile Strength(Mpa) ASTM D412	Elongation (%)ASTM D412	Tear Strength TS(KN/mm) Die B	Compress Set(%) (22h/177° C/25 %) ASTM D 395 B	Rebound (%) ISO 4662
SR4XXU	SR430U	33	1.08	9.8	812	15	-	70.1
	SR440U	43	1.12	9.5	692	19	-	62.5
	SR450U	51	1.15	9.4	512	21	-	59.4
	SR460U	60	1.17	12.1	495	22	-	55.5
	SR470U	70	1.19	11.2	360	27	-	55.7
							ASTM D624 Die C	
SR5XXU	SR515U	16	1.07	5.6	1210	14	16	54
	SR520U	20	1.07	5.8	1123	15	16	53
	SR530U	30	1.08	8.1	835	12	17	60
	SR540U	41	1.12	9.2	708	17	19	59
	SR550U	50	1.16	8.8	573	17	22	53
	SR560U	60	1.18	8.9	450	18	26	52
	SR570U	70	1.21	8.5	383	19	24	45
	SR580U	80	1.23	8.1	221	16	24	44

Excellent mechanical properties silicone rubber –SR7XXU series

Product characteristics

- Easy to process, not sticky to rolls, easy to demold.
- Good mechanical properties.
- Easy to process and demold, not sticky to rolls.
- Good stability up to 200℃.
- Bright colors easily obtained with color bases.
- Wild range of reloading or blending.

Product application

- SR7XXU is for excursion process. SR7XXUM is for compression molding process. Molding articles made of this series have good comprehensive properties.

Technical specifications–SR7XXU series

	Grade	Hardness Shore A	Density D(g/cm3)	Tensile Strength(Mpa) ASTM D412	Elongation (%)ASTM D412	Tear Strength TS(KN/mm) Die B
SR7XXU	SR730U	32	1.09	11.7	948	22
	SR750U	50	1.14	12.1	701	28
	SR760U	59	1.16	11.6	682	28
	SR770U	70	1.2	11.2	532	34
	SR780U	81	1.22	10.4	301	29

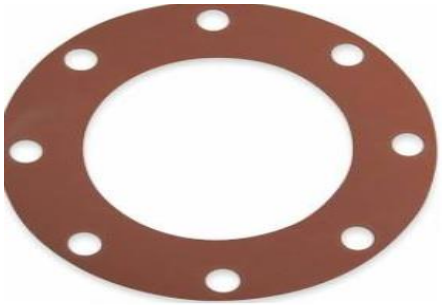
High rebound and low compression set silicone rubber –SR8XXU series

Product characteristics

- High rebound and low compression set.
- Easy to process and demold, not sticky to 2-rolls.
- Slight replastification after prolonged storage
- Bright colors easily obtained with color bases.
- Wild range of reloading or blending.

Product application

- SR8XXU can be used to manufacture articles required high rebound and low compression set, such as oil ring, gasket and roller, etc.



Technical specifications–SR8XXU series

	Testing Method	Unit	Technical Specification					
			SR830U	SR840U	SR850U	SR860U	SR870U	SR880U
Appearance	Visual Observation		Transluce nt	Translucent	Translucent	Translucent	Translucent	Translucent
Density	ASTM D792	g/cm3	1.07	1.10	1.14	1.16	1.19	1.22
Hardness (Shore A)	ASTM D2240	Shore	34	41	50	63	71	80
Tensile Strength	ASTM D412	Mpa	5.6	6.1	8.9	8.5	8.9	7.2
Elongation	ASTM D412	%	576	435	442	357	289	175
100% M	ASTM D412	Mpa	0.63	0.93	1.35	2.2	3.16	4.54
Tear Strength	ASTM D624 B	N/mm	8	9	12	18	16	11
Compress Set (177℃*22h)	ASTM D395	N/mm	10	7	9	10	11	9
Rebound	ASTM D395 Method B	%	67	72	66	58	53	49

High rebound and oil resistance silicone rubber –SR22XXU series

Product characteristics

- Excellent tear strength of polymer
- It is not easy to be structured in long-term storage.
- Good thermal stability, heat resistance up to 225ºC

Product application

SR2200U series can be used for high resilience, oil strength occasions and other products and other occasions and other products suitable for molding, injection, extrusion process .

Technical specifications–SR22XXU series

	Test Method	Unit	Technical Specification				
			SR2230U	SR2240U	SR2250U	SR2270U	SR985U
Mechanical properties, 1.1after 1st vulcanization							
Specific gravity	ASTM D792	g/cm3	1.09	1.10	1.12	1.18	1.21
Hardness (Shore A)	ASTM D2240		29	42	52	70	82
Tensile strength	ASTM D412	MPa	6	6.4	7.2	9.5	10.5
Elongation at break	ASTM D412	%	800	400	410	280	300
Tear strength (Crescent)	ASTM D 624 B	kN/m	12	15	16	22	27
Rebound	GBT 1681-2009	%	77	75	66	49	44
Compression set 177 ℃ ×	ASTM D395 Method A	%	21	22	23	21	23

Oil-resistance silicone rubber-- SR21XXUOR series

Product characteristic

- Low compression set.
- Good thermal stability, up to 225℃
- Excellent resistance to oil (low swelling).
- Barely structured in a long-term storage.
- Being able to be mixed with other rubbers.

Product application

SR2100 UOR series can be used to manufacture mechanical rubber goods which require low compression set and good oil resistance. This series is suitable for molding, injection, extrusion process.

Technical specifications --SR21XXUOR series

Item	Test Method	Unit	Technical Specification			
			SR2150UOR	SR2160UOR	SR2170UOR	SR2180UOR
1 Mechanical properties，1.1after a single curing						
Density	ASTM D792	g/cm^3	1.19	1.25	1.32	1.37
Hardness (Shore A)	ASTM D2240		51	62	71	82
Tensile Strength	ASTM D412	MPa	7.8	7.5	8.2	8.5
Elongation	ASTM D412	%	350	300	220	160
Tear Strength (Crescent)	ASTM D 624 B	kN/m	16	15	15.2	13.2
1 Mechanical properties，1.1after secondary curing						
Hardness (Shore A)	ASTM D2240		52	62	72	83
Tensile Strength	ASTM D412	MPa	7.7	7.5	8.3	8.6
Elongation	ASTM D412	%	320	280	190	150
Tear Strength (Crescent)	ASTM D 624 B	kN/m	15	14	15.3	13
Compression Set (22hr/177℃)	ASTM D395 Method A	%	10	10.9	8.2	7.9
1 Mechanical properties，1.3 Performance changes after 70 hours of aging at 225℃						
Hardness (Shore A)	ASTM D2240		55	65	74	85
Tensile Strength	ASTM D412	MPa	7.1	6.5	6.4	6.84
Elongation	ASTM D412	%	310	235	150	130
2 Oil resistance: 2.1 Performance changes after 70 hours of aging in ASTM 903 oil at 150℃						
Hardness (Shore A)	ASTM D2240		36	48	56	69
Tensile Strength	ASTM D412	MPa	3.5	3.8	5.7	6.3
Elongation	ASTM D412	%	430	400	340	274
Volume change rate	ASTM D 471	%	37	35	36	34
2 Oil resistance: 2.1 Performance changes after 70 hours of aging in ASTM 901 oil at 150℃						
Hardness (Shore A)	ASTM D2240		49	60	69	80
Tensile Strength	ASTM D412	MPa	6.7	6.8	7.5	7.4
Elongation	ASTM D412	%	420	350	310	285
Volume Change Rate	ASTM D 471	%	5.4	5.2	3.4	2.3

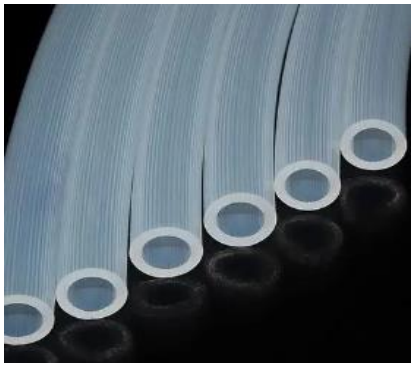
High tear resistance silicone rubber series- SR32/33XXU series

Product characteristics

- The product has excellent tearing performance.
- This series of products have excellent transparency and mechanical properties.
- Long-term storage of products is not easy to structure, easy to color
- Excellent processing performance.
- Suitable for mixing with other silicone rubber.
- Comply with FDA food requirements.

Product application

- Suitable for complex mechanical properties requiring high tear resistance molded products; All kinds of baby products, high-performance extruded tubes; Various consumer electronic protective cases; Large-size extruded products such as special cable sheathing; Silicone plate, air bag and other large size drum vulcanized products.



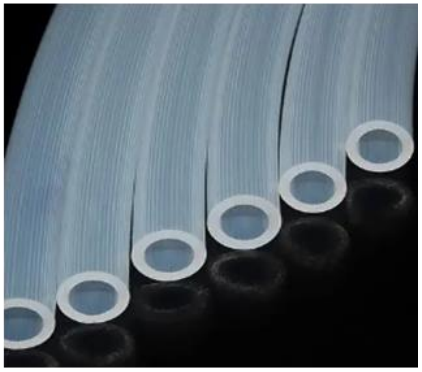
High tear strength silicone rubber series- SR32/33XXU series

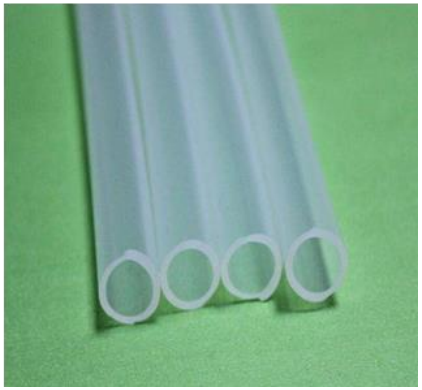
Product characteristics

- This series of products have excellent transparency and mechanical properties.
- Long-term storage of products is not easy to structure, easy to color
- The product has excellent tearing performance.
- Excellent processing performance.
- Suitable for mixing with other silicone rubber.
- Comply with FDA food requirements.

Product characteristics

- **SR32XX** series is high tear strength with high transparency, high yellow resistance, suitable for more complex miscellaneous parts.
- **SR33XX** series is a super high tear strength with high transparency, good physical properties, suitable for higher tear resistance applications.





Technical specifications - SR32/33XXU series

Item	Testing Method	Unit	Technical data						
			SR3240U	SR3250U	SR3270U	SR3280U	SR3350U	SR3360U	SR3370U
Appearance	Visual Observation	/	semitrans parent	semitrans parent	semitrans parent	semitrans parent	semitrans parent	semitrans parent	semitrans parent
Density	ASTM D792	g/cm^3	1.10	1.14	1.19	1.21	1.14	1.16	1.18
Hardness(Shore A)	ASTM D2240		41	49	71	82	52	60	72
Tensile Strength	ASTM D412	MPa	9.5	10	10.5	9.8	11	11.2	10.8
Elongation	ASTM D412	%	850	700	450	300	820	570	520
Tear Strength (crescent)	ASTM D 624 B	kN/m	30	35	36	30	45	48	49

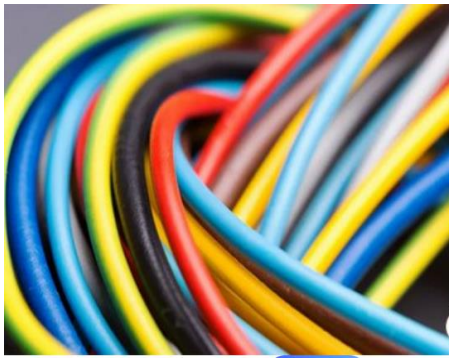
Fire resistance silicone rubber --SR64/XXUFR series

Product characteristics

- Good flame retardant performance, no halogen, 2MM test can reach V0.
- Low specific gravity, good pressure performance.
- Ceramic type high temperature combustion into porcelain strength.
- Railway rail transit can meet the EN45545 class R1&R22R23 certification, good temperature resistance, temperature resistance up to 300℃.
- Comply with ROSH environmental requirements.C

Product application

- Suitable for all kinds of flame-retardant and high physical requirements, such as flame-retardant cable, railway rail transit connection windshield, ceramic cable, Locomotive seal strip ,SR64XXUFR series, physical properties can be more than 6Mpa, halogen-free series, pressure variation 175×22H≤25%
- **SR64XXUFR** series, EN45545 special series for railway rail transit, can pass R1 LH2 series, R23 LH3 series, can withstand 300℃ high temperature



Technical Specification –SR64XXUFR series

	Test Method	Unit	Technical Specification	
			SR6450UFR	SR6470UFR
1 Mechanical properties, 1.1 after one vulcanization				
Appearance	visual inspection	/	translucent	Milky white
Density	ASTM D792	g/cm^3	1.49	1.52
Hardness(Shore A)	ASTM D2240	HA	52	72
Tensile Strength	ASTM D412	MPa	6.7	7.2
Elongation	ASTM D412	%	380	175
Tear Strength	ASTM D 624 B	kN/m	1.49	1.52
Flame retardancy	UL 94V0		V0	V0
1 Mechanical properties, 1.2 secondary vulcanization after 200℃×4H				
Hardness(Shore A)	ASTM D2240	HA	53	72
Tensile Strength	ASTM D412	MPa	6.2	6.5
Elongation	ASTM D412	%	360	150
Compression set 177℃×22hr/25%	ASTM D395 Method A	%	25	24

Temperature resistance silicone rubber– SR12XXUTH series

Product characteristics

- Excellent raw rubber strength
- It is not easy to be structured in long-term storage.
- No need of secondary vulcanization
- Good thermal stability, heat resistance up to 315ºC
- Can be used for mixing with other silicone rubber

Product characteristics

Suitable for occasions with high temperature resistance requirements, such as UL heat-strength cable, bronzing rubber roller，seal & gasket, etc.

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Technical Specification – SR12XXUTH series

Project	Test method	Unit	SR1240UTH	SR1270UTH	SR1280UTH
Mechanical properties, 1.1 after primary vulcanization					
Specific gravity	ASTM D792	g/cm3	1.09	1.19	1.21
Hardness (Shore A)	ASTM D2240		40	71	80
Tensile strength	ASTM D412	MPa	7	8.5	8
Elongation at break	ASTM D412	%	610	450	450
Tear strength(Crescent)	ASTM D 624 B	kN/m	18	19	22
Linear shrinkage		%	3.6	3.2	3
1 Mechanical properties, 1.2 after post cure					
Hardness (Shore A)	ASTM D2240		41	72	82
Tensile strength	ASTM D412	MPa	7.4	9.5	8.4
Elongation at break	ASTM D412	%	530	410	300
Tear strength(Crescent)	ASTM D 624 B	kN/m	17	24	23
Compression set 177 ℃ × 22hr/25%	ASTM D395 Method B	%	15	25	27
Linear shrinkage		%	4.3	3.5	3.4
2 Thermal stability, 2.1 Performance after aging for 3 days at 300 ° C					
Hardness (Shore A)	ASTM D2240		46	77	89
Tear strength	ASTM D412	MPa	5	5	4.5
Elongation at break	ASTM D412	%	300	150	110
Thermal stability, 2.2 Performance after aging for 7 days at 300 ° C					
Hardness (Shore A)	ASTM D2240		56	83	93
Tensile strength	ASTM D412	MPa	5	4.4	3.5
Elongation at break	ASTM D412	%	260	110	90
Thermal stability, 2.3 Performance after 10 days aging at 300 ° C					
Hardness (Shore A)	ASTM D2240		66	85	94
Tensile strength	ASTM D412	MPa	4.5	3.8	3.8
Elongation at break	ASTM D412	%	200	100	90

Special silicone rubber-- SR32/35UDP series

➢ **Product characteristics**

- PVMQ Phenyl-Vinyl-Methyl-Silicone
- Resistance to crepharding.
- Good mechanical properties.
- Excellent resistance to low temperature and radiation.
- Wide operating temperature -100℃~250℃.
- Easily processed and easily pigmented.

Special silicone rubber-- SR32/35UDP series

➢ **Product application**

- **Automotive industry**: all kinds of vehicle seal ring, oil seal, diaphragm, conduit, valve lining, etc.
- **Petrochemical industry**: all kinds of high temperature, low temperature, chemical erosion resistance pump, valve, oil tank and other equipment sealing products.
- **Astronomy industry**: aircraft fuel oil and lubricating oil seals, contact parts, such as all kinds of O ring, filling, sealing ring, sensor materials, diaphragm, liner clamp.
- **Military industry**: low temperature resistance/oil resistance/acid resistance in harsh environment, such as military aircraft hydraulic system infusion bellows, sealing strip of special vehicle doors and Windows/back cover, sensor materials.

Technical Specification –SR32/35XXUDP series

	Test Method	Unit	Technical Specification			
			SR3250UDP	SR3270UDP	SR3550UDP	SR3570UDP
1Mechanical properties, 1.1 after one vulcanization						
Appearance	visual inspection	/	translucent	translucent	translucent	translucent
Density	ASTM D792	g/cm^3	1.19	1.21	1.20	1.24
Hardness(Shore A)	ASTM D2240	HA	52	71	52	71
Tensile Strength	ASTM D412	MPa	10.1	10.2	9.1	9.5
Elongation	ASTM D412	%	401	294	650	350
Tear Strength	ASTM D 624 B	kN/m	22	21	34	36
1 Mechanical properties, 1.2 secondary vulcanization after 200℃×4H						
Hardness(Shore A)	ASTM D2240	HA	55	73	54	73
Tensile Strength	ASTM D412	MPa	9.8	9.9	9.5	9.6
Elongation	ASTM D412	%	378	265	576	297
Brittleness temperature	-85℃×3min	-	non-brittle	non-brittle	non-brittle	non-brittle
Brittleness temperature	-100℃×3min	-	-	-	non-brittle	non-brittle
2 Thermal stability, 2.1 Performance after aging at 225℃ for 70H						
Hardness(Shore A)	ASTM D2240	HA	60	79	59	77
Tensile Strength	ASTM D412	MPa	6.2	6.1	6.3	6.5
Elongation	ASTM D412	%	255	212	265	223

Special silicone rubber– FS22XXUseries

➢ **Product characteristics**

Molded fluorosilicone rubber

- Excellent oil resistance and outstanding polar solvent resistance
- Easily processed and easily pigmented
- High resilience
- Very low compression set
- Good heat stability, up to 230°C
- Good oil resistance

➢ **Product application :**

- Mainly used in automobile industry, aerospace industry, petroleum chemical industry and
- Military industry.
- Suitable for applications as sealing materials for petroleum oil, lubricant oil, hydraulic oil, transformer oil, and apolar chemical reagents in low temperature and/or high temperature environments.
- Suitable to produce molded, extruded and calendered parts including O-rings, gaskets, fuel-line quick-connect seals, oil seals, sealing strips, diaphragms, membranes, valves, hydraulic and electrical clamp blocks.

Technical Specification –FS22XXU series

	Test Method	Unit	Technical Specification					
			FS2230U	FS2240U	FS2250U	FS2260U	FS2270U	FS2280U
Density	ASTM D792	g/cm^3	1.40	1.42	1.43	1.45	1.47	1.48
Hardness(Shore A)	ASTM D2240		30	39	50	59	71	79
Tensile Strength	ASTM D412	MPa	9.7	10.4	10.4	10.1	10.0	9.1
Elongation	ASTM D412	%	498	410	358	295	254	200
Tear strength (crescent)	ASTM D 624 B	kN/m	17	17	18	17	18	17
Rebound	ASTM D1054-2002	%	30	27	26	26	26	25
Compression set 177℃×22hr	ASTM D395 Method A	%	7.5	6.2	6.8	6.9	6.9	7.4
Fuel CVolume variability (23℃×70hr)	Hardness change	HA	-6	-8	-10	-11	-11	-11
	Variation rate of tensile strength	%	-53	-52	-40	-36	-33	-27
	Variation rate of elongation	%	-45	-36	-30	-26	-21	-19
	Volume change rate	%	+25	+20	+18	+17	+16	+15
Fuel CVolume variability (23℃×70hr)	Hardness change		-7	-6	-6	-6	-5	-3
	Variation rate of tensile strength	%	-30	-28	-25	-19	-18	-18
	Variation rate of elongation	%	-26	-25	-20	-13	-14	-14
	Volume change rate	%	+3.5	+3.0	+3.0	+3.0	+2.5	+2.1

Special silicone rubber– FS82XXUseries

➢ Product characteristics

Extruded fluorosilicone rubber

- Good extrusion performance.
- Excellent resistance to oil and non-polar chemical.
- Low compression set.
- Wild operating temperature: -60~230℃
- Good processability and easily pigmented.
- Excellent resistance to structurization.

➢ Product application

- Mainly used in automobile industry, aerospace industry, petroleum chemical industry and military industry.
- Suitable for applications as sealing materials for petroleum oil, lubricant oil, hydraulic oil, transformer oil, and non-polar chemical reagents in low temperature and/or high temperature environments.

Technical Specification –FS82XXU series

	Test Method	Unit	Technical Specification		
			FS 8250 U	FS 8260 U	FS 8280 U
Appearance	visual inspection	/	translucent	translucent	translucent
Density	ASTM D2240	g/cm3	1.46	1.48	1.5
Hardness （Shore A）	ASTM D412	SHA	50	60	80
Tensile Strength	ASTM D412	MPa	9.9	9.8	7.3
Elongation	ASTM D 624 B	%	320	380	320
Tear Strength	ASTM D 624 B	kN/m	22	27	27
Compression Set (22hr/177℃)	ASTM D395 Method B	%	17	19	23
Fuel B Volume Swell (23℃×70hr)	GB/T1690	%	21	18	18

Liquid silicone series-LSR61XXAB series

➢ **Product characteristics**

- Excellent mold release and easily pigmented, soft skin-like feel when molded
- Superior clarity, small deformation value
- High transparency, high strength, good resilience, yellowing resistance, aging resistance
- Complies with US FDA CFR 21 Part 177.2600 standard
- Conforms to European EN14350-2, Section 4.9 Volatile Compound Test Standards
- Meets European ROHS and REACH Standard
- Pot-life of the mixture of the two components (closed vessel) at 20°C is 5 days
- Increased temperatures reduce the pot-life

Technical Specification - LSR61XX series

	Test Method	Unit	Technical Specification			
			LSR 6150	LSR 6160	LSR 6167	LSR 6170
Density	ASTM D792	g/cm^3	1.12	1.12	1.13	1.13
Hardness(Shore A)	ASTM D2240		50	59	66	71
Tensile Strength	ASTM D412	MPa	9.1	9.4	9.5	9.0
Elongation	ASTM D412	%	550	510	410	335
Tear strength (N/mm)	ASTM D 412 Die C	kN/m	31	35	30	26
Line shrinkage(%)	ASTM(D4029)	%	2.6	2.6	2.6	2.5
Rebound (%) ISO 4662	ASTMD7121	%	64	62	56	55

Liquid silicone series-LSR71XXAB series

- **Product characteristics**
- Good physical property
- Good injection property
- High transparence and high purity
- Excellent thermal stability and weather resistance
- Complies with RoHS, pass FDA

Technical Specification – LSR71XX series

	Test Method	Unit	Technical Specification					
			LSR 7140	LSR 7145	LSR 7150	LSR 7155	LSR 7160	LSR 7170
Density	ASTM D792	g/cm^3	1.12	1.12	1.12	1.12	1.13	1.13
Hardness(Shore A)	ASTMD2240		41	45	51	55	60	69
Tensile Strength	ASTM D412	MPa	10.2	10.1	10.4	9.3	9.4	101
Elongation	ASTM D412	%	756	775	675	635	550	469
Tear strength (N/mm)	ASTM D 412 Die C	kN/m	34	37	38	45	46	45
Compression Set (%)	ASTMD395 B	%	26	25	26	31	38	32
Rebound (%) ISO 4662	ASTMD7121	%	56	58	62	62	66	63

Liquid silicone series-LSR82XXAB series

- **Product characteristics**

- Very low volatile content
- High transparence and high purity
- Excellent thermal stability and weather resistance
- Perfect physical property
- Good injection property
- Complies with RoHS, pass FDA

Technical Specification – LSR82XX series

	Test Method	Unit	Technical Specification					
			LSR 8220	LSR 8230	LSR 8240	LSR 8250	LSR 8260	LSR 8270
Density	ISO 2771	g/cm^3	1.09	1.09	1.1	1.11	1.13	1.13
Hardness(Shore A)	ASTM D2240		23	30	40	50	60	67
Tensile Strength	ASTM D412	MPa	7.5	7.6	8.1	9.1	10.1	9.4
Elongation	ASTM D412	%	810	690	550	450	440	360
Tear strength (N/mm)	ASTM D 412 Die C	kN/m	17	18	24	38	41	40
Volatile content (%)	EN-14350-2	%	0.36	0.35	0.31	0.31	0.30	0.30

Liquid silicone series-LSR61/71/82XXAB series

Product application

- Baby care parts: baby pacifiers , baby bottles, bottle caps, baby tableware, baby toys, etc.
- Respiratory mask
- Automotive applications: valves, gaskets, seals
- Skin contact parts like liners
- Balloons

Nitrile rubber and PVC– NV7030

Product characteristics

NV 7030 is a blend of nitrile rubber and PVC. After adding vulcanizing agent, the compound is vulcanized and formed (the vulcanizing agent is selected according to the process requirements)

- Calendering and pressing out are fast and the surface is smooth
- Good storage stability
- Excellent abrasion & tear resistance
- Ozone resistance & excellent weather resistance
- Excellent oil and solvent resistance
- Excellent antistatic property
- Excellent flame retardancy

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Technical Specification – NV7030

Item	Test method	Unit	Measured value			Final value
Mooney viscosity（ML 1+4@100℃）						52
Rheometer properties：ODR Rheometer170℃×12min×1arc						
Minimum torque	/	lb-in	2.84			2.84
Maximum torque	/	lb-in	23.07			23.07
Scorch time TS1	/	min	1.6			1.6
Optimum cure TC90	/	min	5.8			5.8
1、Mechanical properties 1.1 Cured 170℃×6min						
Proportion	ASTM D297	g/cm^3	1.172			1.172
Hardness	ASTM D2240	Points	79	80	80	80
Tensile Strength	ASTM D412	Kg/cm^2	159	162	165	162
Elongation		%	478	472	470	472
M200		Kg/cm^2	101	102	106	102
1、Mechanical properties 1.2 Heat resistant air aging at 100℃×70hrs						
Hardness Change	ASTM D2240	Points	-4	-5	-6	-5
Tensile Change	ASTM D412	%	+0.28	+0.30	+0.31	+0.30
Elongation Change	ASTM D412	%	-17	-16.8	-17.5	-17
2、Oil resistance 2.1 ASTM NO.1 Oil Immersion at 100℃×70h						
Hardness Change	ASTM D2240	Points	+5	+6	+6	+6
Tensile Change	ASTM D412	%	-0.93	-0.98	-0.98	-0.93
Elongation Change	ASTM D412	%	-26	-27	-27	-27
Volume Change	ASTM D471	%	-6.70	-6.87	-6.87	-6.87
2、Oil resistance 2.2 ASTM NO.903 Oil Immersion at 100℃×70hrs						
Hardness change	ASTM D2240	Points	+4	+4	+5	+4
Tensile Change	ASTM D412	%	+1.85	+1.84	+1.85	+1.85
Elongation Change	ASTM D412	%	-15.1	-15	-15.2	-15
Volume Change	ASTM D471	%	+0.21	+0.20	+0.20	+0.20
2、Oil resistance 2.3 Fuel C Immersion at 40℃×48hrs						
Volume Change	ASTM D471	%	+30.66	+30.65	+30.67	+30.66
3、Compression set at 100℃×70hrs（The vulcanization condition of the sample used in the experiment is 170 ℃×10min）						
Deformation Rate	ASTM D395	%	46.10	46.00	45.98	46.00
4、Static ozone resistance at 80pphm×20%elongation×40℃×120hrs						
Crack or No crack	ASTM D1171	/	No	No	No	No

Sanesil ACM rubber

Type	Grade	Mooney Viscosity(1+4)*100℃	Characteristic	Application
Active chlorine type	ACM2013	53±5	Good oil resistance, use temperature -15℃~180℃	Seals, gaskets, hose
	ACM3013	44±5	Excellent overall performance, use temperature -30℃~175℃	Seals, gaskets
Carboxyl type	ACM3212T	43±5	Good overall performance, special for hoses, Tg of -28℃	Seals, gaskets, hose
	ACM3213T	44±5	Long scorch time, for molded products, Tg of -28℃	Seals, gaskets
	ACM5212T	37±5	Good low temperature and good oil resistance, Tg is -32℃	Seals, gaskets, hose
	ACM6212	28±5	Ultra-low temperature grade, use temperature -40℃~175℃	Seals, gaskets, hose

Rubber pre-mix—FKM

Product characteristics

- Excellent wear & tear resistance; excellent ozone resistance & weather resistance
- Heat resistance comparable to silicone rubber, better than any other rubber; excellent resistance to superheated water or water vapor, excellent high vacuum resistance Good appearance.
- Excellent corrosion resistance, excellent resistance to moderate doses of radiation
- Good low temperature performance
- Good storage stability
- Excellent antistatic property in low frequency and low voltage occasions
- Calendering, extrusion fast, smooth surface, high strength, high hardness & low pressure deformation, high chemical stability

Rubber compound—FKM

- **Product application:**

FKM premix rubber are mainly used in high and low temperature sealing, vacuum instrument equipment, chemical equipment, automobile, aviation and other fields. It is also one of the indispensable high-performance materials for modern aviation, missiles, rockets, space navigation, ships, atomic energy and other cutting-edge science and technology.

Technical Specification – FKM series

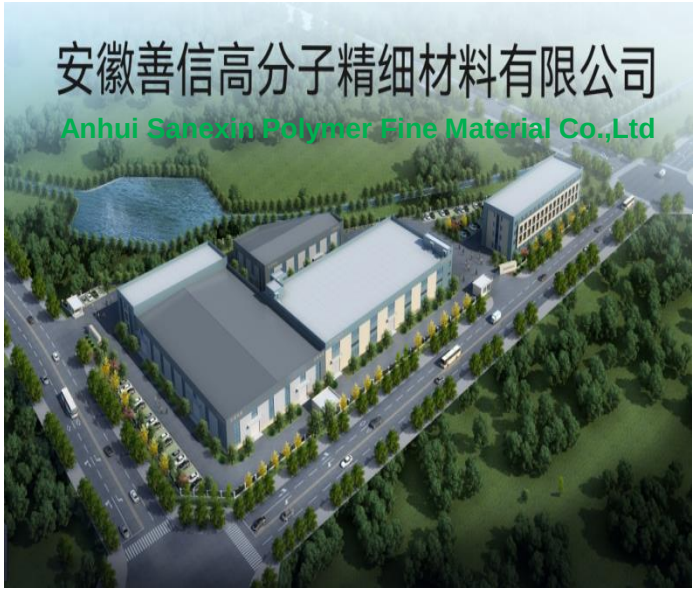
Product performance:

product name			LXF100CA	LXF200CA
Project	Test Methods	Unit	Typical value	
Mooney viscosity（ML 1+4@100℃）			53	48
Vulcanization performance test: 180℃×5min×1arc				
Minimum torque	ASTM D2048	lb-in	0.40	0.38
Maximum torque		lb-in	9.02	8.46
Scorch Time TS2		s	72	73
Positive vulcanization time TC90		s	140	136
1、Mechanical properties 1.1 First vulcanization: 175℃×10min, Second vulcanization: 230℃×16h				
Proportion	ASTM D297	g/cm3	1.938	1.936
Hardness (Shore A)	ASTM D2240	Points	70	70
Tensile strength	ASTM D412	MPa	11.28	10.58
Elongation at break		%	257	248
M100		MPa	5.45	5.40
1、 Mechanical properties 1.2 Changes in properties after aging at 200°C for 504 hours				
Hardness (Shore A) change	ASTM D2240	Points	+3	+5
Change in breaking strength	ASTM D412	%	-4.2	-8.0
Elongation	ASTM D412	%	-15.5	-22.5
2、Oil resistance 2.1 Changes in resistance to FAM B oil at 23°C for 48 hours				
Hardness (Shore A) change	ASTM D2240	Points	-6	-10
Volume change rate change	ASTM D471	%	+10.5	+16.5
2、Oil resistance 2.2 Performance after aging and drying at 100°C for 48 hours after being resistant to FAM B oil at 23°C for 48 hours				
Hardness (Shore A)	ASTM D2240	Points	70	70
Tensile strength	ASTM D412	%	10.28	9.98

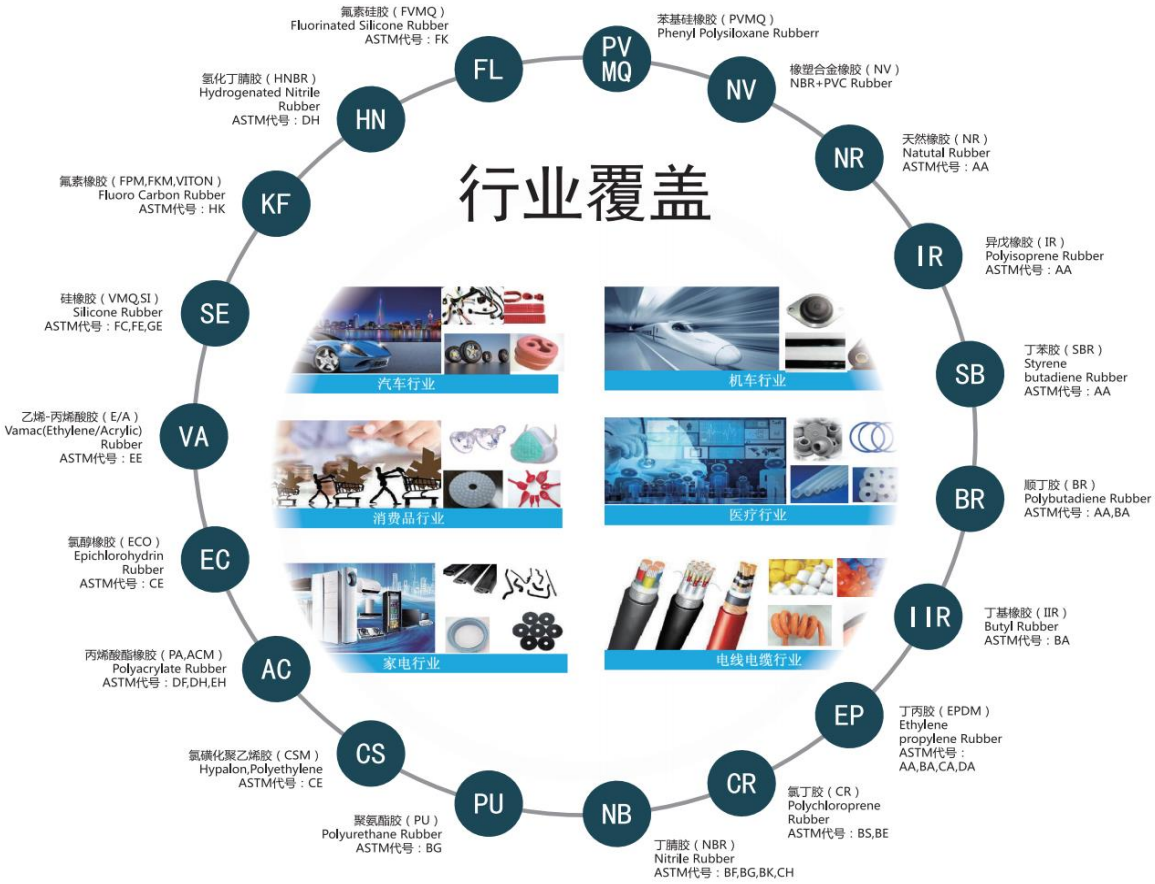
Technical Specification – FKM series

Elongation	ASTM D412	%	245	224
Volume change rate	ASTM D471	%	+0.23	+0.52
2、Oil resistance 2.3 Diesel resistance change at 23°C for 48 hours				
Hardness (Shore A) change	ASTM D2240	Points	0	-3
Volume change rate	ASTM D471	%	-0.03	+3.98
2、Oil resistance 2.4 Performance after aging at 23°C for 48 hours against diesel oil and drying at 100°C for 48 hours				
Hardness (Shore A)	ASTM D2240	Points	70	69
Tensile strength	ASTM D412	%	10.25	9.67
Elongation at break	ASTM D412	%	238	228
Volume change rate%	ASTM D471	%	+0.34	+0.92
2、Oil resistance 2.5 Biodiesel resistance (RME) performance at 80°C for 504 hours				
Hardness change (Shore A)	ASTM D2240	Points	-2	-4
Volume change	ASTM D471	%	+3.1	+5.2
Tensile strength	ASTM D412	MPa	8.94	7.54
Elongation at break		%	269	237
2、Oil resistance 2.6 Resistance to 5W/30 engine oil (RME) at 80°C for 504 hours				
Hardness change (Shore A)	ASTM D2240	Points	-1	-4
Volume change	ASTM D471	%	+3.52	+9.62
Tensile strength	ASTM D412	MPa	9.05	7.24
Elongation at break		%	215	189
3、Compression set at 150°C for 24 hours (the vulcanization condition of the sample 1st curing at 175°C×10min and 2nd curing at 230°C×16h)				
Compression set	ASTM D395	%	26.48	23.48
4、Ozone resistance 80pphm×20% for elongation×40℃×120 hours				
Cracked or not	ASTM D1171	/	NO	NO
5、Low temperature retraction TR10				
TR10	GB 7758	℃	-20	-25

Rubber Compound - Full range of SR+NR



One-Stop Rubber Solution Provider

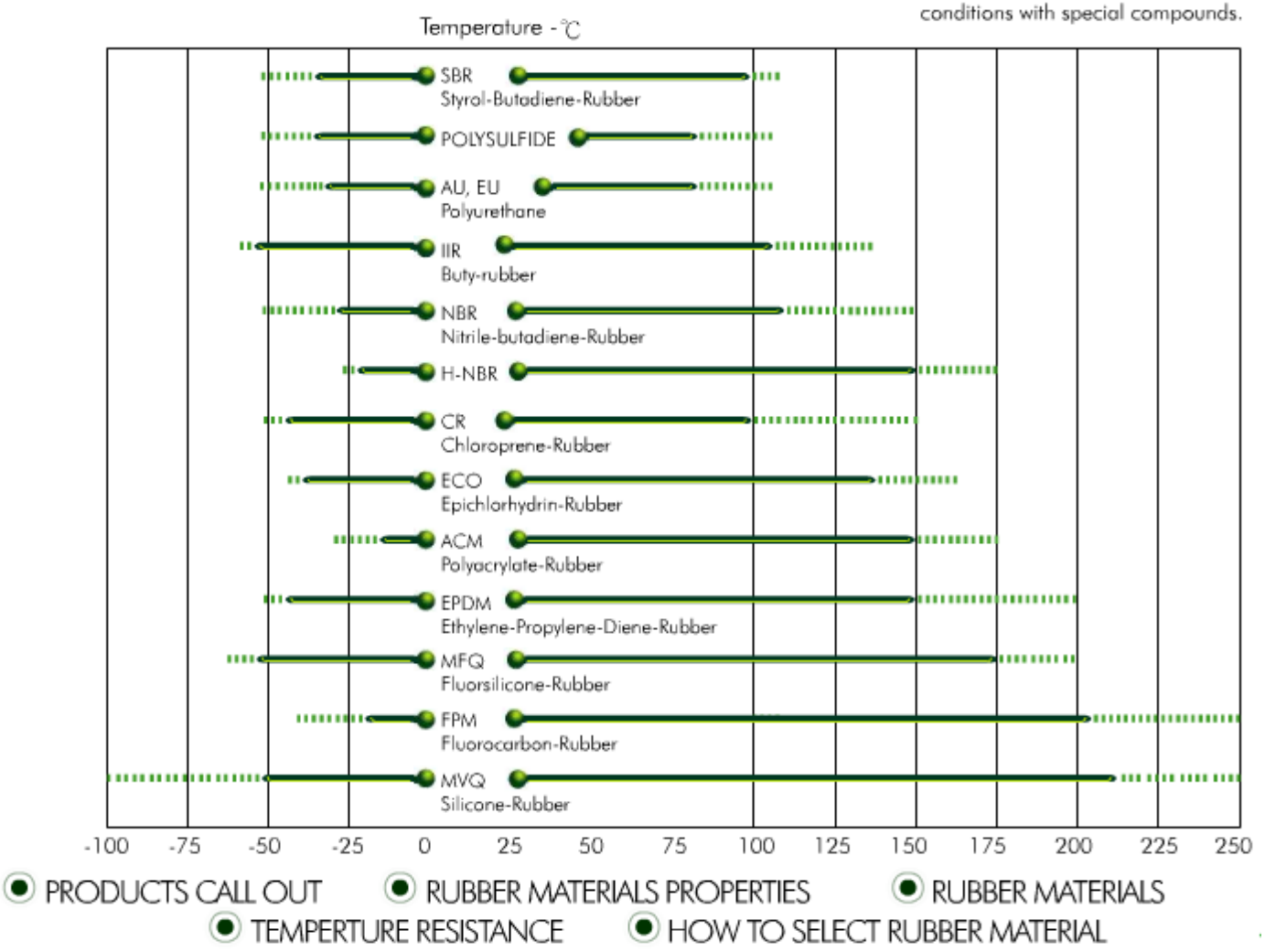


Temperature Resistance in Rubber Family

TEMPERTURE RESISTANCE OF RUBBER MATERIALS

Working Temperature period.

Only to be achieved under particular conditions with special compounds.



PRODUCTS CALL OUT RUBBER MATERIALS PROPERTIES RUBBER MATERIALS
TEMPERTURE RESISTANCE HOW TO SELECT RUBBER MATERIAL

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Properties in Rubber Family

RUBBER MATERIALS PROPERTIES

◎ Excellent ● Good ■ Suitable △ Limited ▼ Poor

	NR	IR	SBR	BR	IIR	EPDM	CR	NBR	PU	CSM	ACM	ECO	VAE	SI	FPM
Tensile Strength	◎	●	●	△	△	△	●	●	◎	●	▼	△	●	▼	●
Elongation	◎	◎	●	△	●	●	●	●	◎	●	▼	▼	▼	◎	▼
Rebound Resistance	◎	◎	△	◎	▼	●	◎	●	◎	△	△	△	△	△	△
Tear Resistance	◎	●	△	△	△	△	●	●	◎	△	▼	△	△	▼	△
Abrasion-Resistance Resistance	◎	◎	◎	◎	◎	●	●	◎	◎	●	△	△	●	▼	△
Impact Strength Resistance	◎	◎	◎	●	●	●	◎	●	◎	●	▼	●	△	▼	△
Gas Impermeability Resistance	△	△	△	△	◎	△	◎	●	●	●	△	◎	●	▼	●
Oxygen Resistance	△	△	△	△	◎	●	●	△	●	◎	●	●	◎	◎	◎
Ozone Resistance	▼	▼	▼	▼	●	◎	●	▼	●	◎	●	◎	◎	◎	◎
Weathering Resistance	△	△	△	△	◎	◎	●	△	●	●	●	●	◎	◎	◎
Flame Resistance	▼	▼	△	△	◎	◎	●	▼	●	◎	●	●	◎	◎	◎
Heat Resistance	▼	▼	△	△	●	◎	●	△	△	●	●	●	●	◎	◎
Low Temperature Resistance	●	●	△	●	△	●	△	△	●	△	▼	●	●	◎	●
Oil and Fuel Resistance	▼	▼	▼	▼	▼	▼	■	●	●	■	●	●	△	△	◎
Animal and Vegetable Oil Resistance	△	△	△	△	●	●	●	◎	●	●	◎	◎	△	■	◎
Alcohol Resistance	●	●	●	●	●	■	◎	●	■	◎	●	●	●	●	●
Alkaline Resistance	△	△	△	△	◎	●	◎	●	▼	◎	▼	■	●	▼	■
Acid Resistance	■	■	■	■	●	●	●	●	▼	●	△	△	△	△	●
Aliphatic-solvent Resistance - Aliphatic	▼	▼	▼	▼	▼	▼	●	◎	●	●	◎	●	△	▼	◎
Aliphatic-solvent Resistance - Aromatic	▼	▼	▼	▼	▼	▼	△	■	▼	△	△	●	▼	▼	◎
Oxygen Ated-solvent Resistance	●	●	●	●	◎	◎	▼	▼	▼	△	▼	▼	△	△	▼
Water Resistance	◎	◎	●	◎	◎	◎	●	●	△	●	▼	●	●	●	●

● PRODUCTS CALL OUT ● RUBBER MATERIALS PROPERTIES ● RUBBER MATERIALS
● TEMPERTURE RESISTANCE ● HOW TO SELECT RUBBER MATERIAL

Rubber Compound – Promotion skill

Promotion skill-Collection information from customers

- 1. The specific rubber material, physical properties and application, technical specification of rubber (oil resistance, heat resistance, etc.).
- 2. What specific products are produced and what role does it play? What problems need to be solved?
- 3. The working conditions of specific rubber products?
- 4. Other customer specific application requirements (laws and regulations? what standards, etc.)?
- 5.Potential volume , and target cost etc.
- 6.A compound (read to use) or B compound (part of RM <Accelerant ,active agent ,curing agent etc.> of curing system be added at customer side)?

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