



SILICONE ELASTOMERS

MOMENTIVE[®]
SOLUTIONS FOR A SUSTAINABLE WORLD™

A Leader in Silicones

As a premier global high-performance silicones and specialties company, Momentive aims to create solutions that improve quality of life for people and enable a more sustainable future. Our products are the result of a tireless pursuit of progress where the sun never sets on our global marketing and R&D efforts, resulting in innovations that help propel our customers' businesses forward and positively impact all aspects of life – today, tomorrow and into the future.

Momentive's innovative portfolio of silicone elastomers has influenced the design of hundreds of applications across a wide range of industries. The exceptional properties of silicone elastomers, such as heat and moisture resistance, flame retardancy, weatherability, dielectric properties, and biocompatibility, make them ideal candidates for a wide range of industrial, electrical transmission, transportation, consumer, and healthcare applications.

Momentive offers a broad portfolio of liquid silicone rubber (LSR) and heat-cured rubber (HCR) products. Ready-to-use compounds can also be supplied and developed, via global custom elastomer facilities.

We are there where you are

Momentive has facilities for custom elastomers in North America, Latin America, Europe and Asia Pacific and local personnel to support your local needs. Give us a call about custom formulated elastomers. Our Application Development Centers are staffed to help customers develop and recommend silicone technologies for their application and specific requirements. We offer a unique portfolio of customized LSR and HCR products and services for our customers, with leading innovations and custom solutions. We provide engineered materials to fit applications, along with material testing and characterization.

Demand for distinctive products is growing, and our materials are at the frontline of innovation. We offer a variety of silicone rubber products and extensive technical expertise to support your needs.

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01 Transportation

Automotive

Our products are used in a wide variety of automotive applications. Momentive's silicone products are easy to process and generally maintain their elastomeric properties in extreme hot and cold environments, offer excellent dielectric properties, resist weathering and offer low compression set. Momentive's silicone elastomers are excellent candidates to consider for a variety of sealing, bonding and insulating applications. Momentive also offers specialty products that can provide excellent resistance to many types of automotive fluids.

Typical applications include:

- Gaskets
- O-rings
- Hoses
- Spark plug boots
- Diaphragms
- Connector seals
- Ignition cables
- Air-management system gaskets
- Exhaust hangers
- Fuel system valves
- Powertrain applications
- Oil-system seals



E-Mobility / New Energy Vehicles

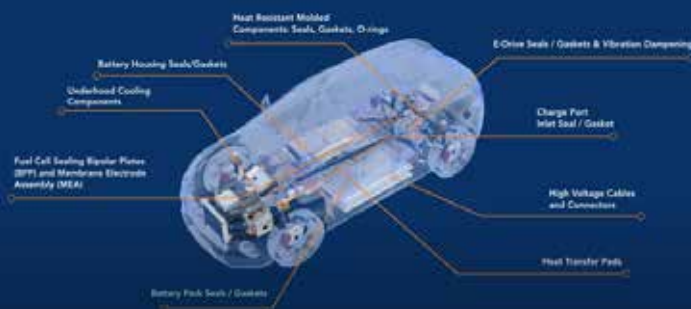
NEVSil™ - Specialty Elastomers for New Energy Vehicles

Silicone's unique properties enable Momentive's materials to excel in a wide breadth of NEV applications. Momentive's LSR and HCR based material technologies are engineering enablers, providing the ability to meet and exceed demanding application performance requirements of NEV's today as well as tomorrow. Our breadth of experience ensures that wherever there is a need, Momentive will have the industry and technical knowledge and expertise to help our customers and industry partners succeed. Some of the key material characteristics inherent to addressing such challenges and solving these complex requirements are:

- High thermal stability and temperature resistance
- Low compression set
- Equivalent to UL94 V0 flame retardant performance (1mm thickness)
- Self-lubricating properties
- Low viscosity
- Fast cure
- Low modulus
- Increased crack resistance
- Outstanding resistance to aging
- Easy to color
- Self-bonding
- Thermal conductivity

Typical applications include:

- UL94 V-0 specified flame retardant parts/applications
- High voltage connectors
- Heat resistant molded components: seals, gaskets, O-rings, etc.
- Boots
- Heat transfer pads and gaskets
- Under hood cooling parts
- Battery sealing applications



MOMENTIVE SILOPREN LSR

E-Mobility Applications

Self-Lubricating LSR Technologies for Seals & Connectors

Momentive Silopren LSR 3000 Series of self-lubricating LSRs have a long track record of success with all major tiers and OEMs in single-wire seals, radial seals and matseal systems or family-seals used in electrical connector applications. Grades are now available with low volatiles, low compression set and/or long-term heat stability.

- Silopren 3x86/xx Series:
Low Compression Set
- Silopren 3x96/xx Series:
Ultra Low Compression Set
- Silopren 3x76/xx Series:
Low Compression
Set/Low Volatile
- Silopren 3x66/xx Series:
Low, Long-Term Compression
Set/High Heat Stability



MOMENTIVE HCR TECHNOLOGIES

E-Mobility Applications

Silplus Heat-Cured Rubber (HCR)

The Silplus family of heat-cured rubbers can be extruded using conventional rubber processing equipment, creating the potential to assist our customers in effectively meeting a range of cost, durability and mechanical performance standards as it relates to the e-mobility segment. Our Silplus portfolio for e-mobility applications includes three different families of products with a broad range of characteristics: Silplus CW products for cable and wire applications, Silplus MP products for multiple purpose applications, and Silplus HS products for high-performance applications requiring even greater tear strength and enhanced mechanical properties.

Addisil Heat-Cured Rubber (HCR)

Addisil technology is utilized to meet stringent mechanical, electrical and thermal requirements for e-mobility wire and cable applications

The series is based on an addition cure platinum system that is a particularly attractive solution for high-value extrusion applications where compliance, mechanical performance and/or productivity are of critical importance. The Addisil Series offers a full range of extrusion products consisting of one-component or two-component systems, with hardness ranges from 40-80 Shore A – to cover the demanding needs of various e-mobility wire and cable system applications.



Aviation & Aerospace

Our products are used in a wide variety of aerospace and aviation applications. Momentive's silicone products are excellent choices to consider for a variety of sealing, bonding and insulating applications. Momentive offers specialty products that can withstand stress and temperature extremes.

Typical applications include:

- Profiles
- Gasketing
- Door seals
- Masks
- O-rings
- Extreme low temperature sealing

Momentive Technology	Application	Specification
23833-NAT	Protective bumpers and pads for wire bundles and bolts	BMS 1-52
FSE2120	Clamp blocks for fuel lines	BMS 1-53 (Grade 40)
FSE7240		BMS 1-53 (Grade 40)
FSE2120		BMS 1-53 (Grade 50)
FSE2620		BMS 1-53 (Grade 50)
FSE2620		BMS 1-53 (Grade 60)
FSE2620		BMS 1-53 (Grade 60)
SE5563U-1	Aerodynamic seals, door seals	BMS 1-57 (Type 1)
AS157U		BMS 1-57 (Type 2)
SE6855U	Seat channel blocks	BMS 1-62 (Grade 55)
23785-NAT		BMS 1-62 (Grade 70)
AS171BLK	Window seals	BMS 1-71 (Type 2)
SE5569U	Interior parts (stow bin gaskets, HVAC system flexible ducting)	BMS 1-72
AS172U		BMS 1-72



02 Healthcare

Our products are used for a variety of medical device applications. Due to the high flexibility and durability of silicone, in combination with the ability to withstand multiple cleaning cycles they are the material of choice. Momentive silicone's biocompatibility and inertness make it an ideal choice for medical devices. Additionally, the superior haptics and withstanding several cycles of sterilization make them a perfect candidate for applications such as:

- Dental / surgical devices
- Diagnostics / imaging
- Orthopedics / prosthetics
- Septa / stoppers / laboratory accessories
- Medical tubing
- Wound drains and bulbs
- Fluid and drug delivery devices
- Respiratory and anesthesia care
- Sterilization mats
- Pharmaceutical closures
- Instrument grips
- Catheters
- Medical equipment keypads
- Positioning devices



Silopren Liquid Silicone Rubber (LSR/LIM)

The Silopren LSR family for healthcare applications includes several series that can all be used with conventional injection molding equipment. The hardness available ranges from 20 up to 80 Shore A. The different product series ensure that we can offer the right material for your application.

- Silopren 40X0 Series
- Silopren 46X0 Series (Fast Cure / High Tear)
- Silopren UV 40X0 Series (UV Cure)
- Silopren 46X5 SL Series (Self-Lubricating)
- Silopren 47X9 Series (Self-Bonding to PC, PBT and Copolyesters)

- LIM 60X0 Series (Fast Cure / High Tear)
- CLS Series (Self-Bonding)
- LIM 60X1 Series (Radio Opaque – X-Ray Detectability)

Addisil Heat-Cured Rubber (HCR)

The Addisil family of heat-cured rubbers can be extruded with conventional rubber processing equipment. The portfolio comprises one-component and two-component platinum cured HCR with hardness ranging from 40 to 80 Shore A and is suitable for high value extrusion applications (e.g., tubing and profiles) where regulatory compliance, transparency, mechanical performance and/or productivity are important. Furthermore, the Addisil UV series enables combinations with heat sensitive materials and the X-Ray Series ensures easy detectability in diagnostics.

- Addisil 1X0 E Series (1 Component Extrusion & Molding)
- Addisil 4X0 E Series (1 Component Extrusion)
- Addisil 4X2 E Series (2 Component Extrusion)
- Addisil NC4X2 E Series (APAC only, 2 Component Extrusion)
- Addisil UV Series (2 Component, UV Extrusion)
- Addisil X-Ray Series (1 Component, Radio Opaque)

Tufel™ Heat-Cured Rubber (HCR)

The Tufel family are heat curable two-component silicone rubber compounds for extrusion and/or molding with low compression sets. Its low volatile contents make Tufel products perfect materials for applications with low extractable requirements and the need for minimized post cure times.

- Tufel II 94X05 Series (2 Component, Molding)
- Tufel II 94X06 Series (2 Component, Extrusion)

Silicone Elastomers for Medical Devices

Innovative Materials with the Patient in Mind

Our products are used for a variety of medical devices applications. Due to the high flexibility and durability of silicone, in combination with the ability to withstand multiple cleaning & sterilization cycles they are the material of choice. Momentive silicone's biocompatibility and inertness make it an ideal choice for medical devices.

- Dental / Surgical Devices
- Diagnostics / Imaging
- Medical Tubing
- Wound drains and bulbs
- Sterilization mats
- Pharmaceutical closures
- Medical equipment keypads
- Positioning devices
- Orthopedics / Prosthetics
- Septa / Stoppers / Laboratory accessories
- Fluid and drug delivery devices
- Respiratory and anesthesia care
- Instrument grips
- Catheters

Momentive Offerings

Silopren & LIM Liquid Silicon Rubber (LSR)

- Silopren 40X0 Series
- Silopren 46X0 Series (Fast Cure / High Tear)
- Silopren UV 40X0 Series (UV Cure)
- Silopren 46X5 SL Series (Self-Lubricating)
- Silopren 47X9 Series (Self-Bonding to PC, PBT and Copolyesters)

Addisil & Tufel High Consistency Rubber (HCR)

One component systems:

- Addisil 1X0 E Series (Extrusion & Molding)
- Addisil 4X0 E Series (Extrusion)
- Addisil X-Ray Series (Radio Opaque)

Two component systems:

- Addisil 4X2 E Series (Extrusion)
- Addisil UV Series (UV Extrusion)
- Tufel II 9400X Series (Extrusion & Molding)

Wearable Electronics & Devices

Enabling the future of healthcare

Wearable devices are electronic devices that can be worn as accessories or are embedded in clothing and can be detached from the body if desired. They are designed to collect and track data on a person's health and fitness and have gained increasing popularity within the fitness, consumer and especially health care industry. With the superior properties of silicone elastomers and our specialties offerings, we can provide solutions for applications such as:

- Glucose monitoring
- Wearable ECG monitors
- Smart skin patches
- Encapsulated wearables
- Hard soft components
- Smart clothing

Momentive Offerings

Silopren & LIM Liquid Silicone Rubber (LSR)

- Silopren 40X0 Series
- Silopren UV 40X0 Series (UV Cure)
- Silopren 47X9 Series (Self-Bonding to PC, PBT and Copolyesters)
- CLS Series (Self-Bonding)

Addisil & Tufel High Consistency Rubber (HCR)

One component systems:

- Addisil 1X0 E Series (Extrusion & Molding)
- Addisil 4X0 E Series (Extrusion)

Two component systems:

- Addisil 4X2 E Series (Extrusion)
- Addisil UV Series (UV Extrusion)
- Tufel II 9400X Series (Extrusion and Molding)

Silopren Gels (Silicone Soft Skin Adhesives / SSA)

- Silopren 49X0 Series



Silicone Elastomers for Biopharma

Silicone: the perfect material for Biopharma-processing

Due to its versatility and numerous benefits, silicone has become increasingly popular in biopharmaceutical processing and advanced therapies. Single-use systems are the new gold standard in the biopharmaceutical industry. Momentive LSR and HCR products are used, among others, in the following applications:

- Tubing
- Hoses
- Gaskets
- Seals
- Valves
- Bags
- Low temperature drug handling (<100° C)

Momentive Offerings

Silopren & LIM Liquid Silicone Rubber (LSR)

- Silopren 40X0 Series
- Silopren 46X0 Series (Fast Cure / High Tear)
- Silopren UV 40X0 Series (UV Cure)
- Silopren 46X5 SL Series (Self-Lubricating)
- Silopren 47X9 Series (Self-Bonding to PC, PBT and Copolyesters)

- LIM 60X0 Series (Fast Cure / High Tear)
- CLS Series (Self-Bonding)
- LIM 60X1 Series (Radio Opaque - X Ray Detectability)

Addisil & Tufel High Consistency Rubber (HCR)

One component systems:

- Addisil 1X0 E Series (Extrusion)
- Addisil 4X0 E Series (Extrusion)
- Addisil X-Ray Series (Radio Opaque)

Two component systems:

- Addisil 4X2 E Series (Extrusion)
- Addisil UV Series (UV Extrusion)

- Tufel II 9400X Series (Extrusion and molding)
- Tufel III 92XX6 Series (Biocompatible Extrusion)
- Tufel 150 LT (Low Temperature Flexibility)

Silicone Soft Skin Adhesive Gels for Wound Care

Innovative Materials with the Patient in Mind

The health care industry is faced with a growing challenge of developing products that can improve patient care and adhere to the highest safety standards, while also contributing to cost-effective production.

Equipped with both open and closed wound applications, Momentive's silicones for wound care combine atraumatic properties and high adhesion with biocompatibility to help improve production efficiencies.

Advanced Wound Care

- Foam dressings
- Super-absorber dressings
- Negative pressure wound therapy
- Smart patches
- Post-op dressings

Classic Wound Care

- Fixation tapes
- Plasters

Ophthalmology

- Eye patches

Ostomy Care

- Seals
- Base plates

Scar Care

- Silicone scar sheets
- Scar patches

Momentive Offerings

Silopren Gels (Silicone Soft Skin Adhesives / SSAs)

- Silopren 49X0 Series

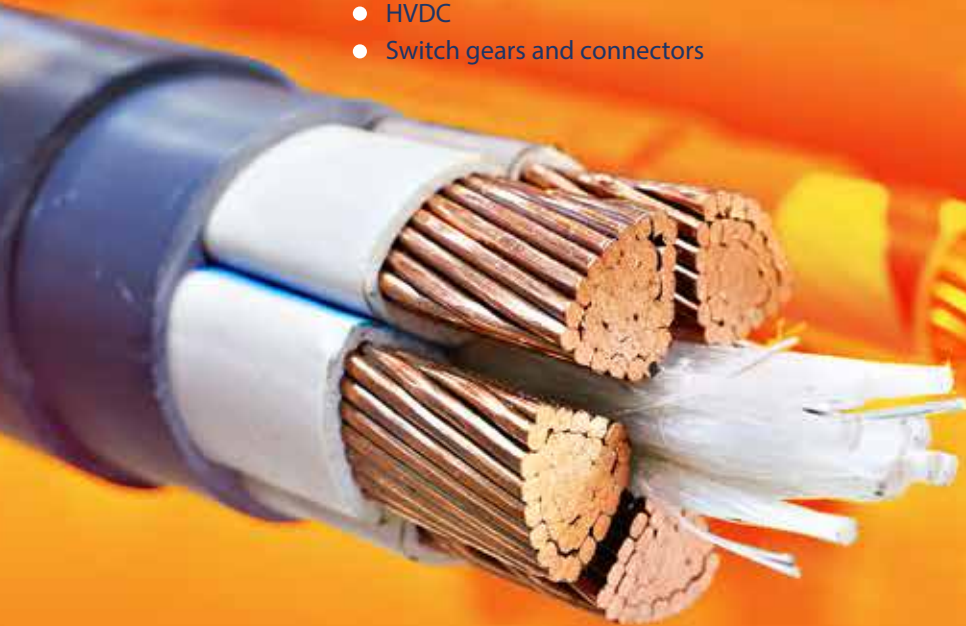


03 Infrastructure

Our broad portfolio of silicone products offers innovative solutions as possible replacements for ceramic materials, such as porcelain and glass, in the field of medium and high voltage technology. Our silicone solutions generally are lighter, require less maintenance, offer improved hydrophobicity, excellent tracking and erosion resistance, ease of processing and outstanding service life.

Typical applications include:

- High voltage insulators
- Cable joints / Push-on / Cold shrink
- Breakers / disconnect switches
- Surge arrestors
- Wire and cable
- Hollow core insulators
- Switch gears
- HVDC
- Switch gears and connectors



Energy-Transmission and Distribution

Intro:

Decarbonization is the big challenge for the coming decades. Integrating renewable energy is one key step to limit global warming. Whether it is about connecting off shore generated wind energy to the mainland or transmitting energy over long distances, Momentive's silicone elastomers support the Transmission & Distribution Industry since many years with electrically insulating and conductive silicone rubbers.

Cable Accessories:

Silicone rubber is the preferred material for the production of cable joints, cable terminations and switch gear connectors. Due to the excellent mechanical and dielectric properties in combination with easy and cost efficient processing, Silopren®LSR are outperforming other materials in design and production of medium and high voltage cable accessories.

Silopren Electro LSR are special formulations with high tracking and erosion resistance for the use of outdoor applications (terminations)

Electrically conductive Silopren LSR, specially developed for the combination with Insulating Silopren and Silopren Electro LSR allows electrical field control for push on joints and cold shrink accessories.

VERSUS EPDM

- Higher elongation properties / elasticity
- Allows for higher joint pressure directly on joint interface = less failures and improved joint sealing
- Much improved low end modulus response
- Ease of manufacturing
- No filler/additive technology required to meet application CTQ's
- Seals tight, retains resiliency and pressure even after prolonged years of aging and exposure
- Excellent adhesion of conductive layer and insulating layer
- Thermal expansion of conductive and insulation layer is almost the same



Push on Joints and Terminations, Medium and High Voltage

- Insulative

- Silopren LSR 2030
- Silopren LSR 2540
- Silopren Electro 242-1
- Silopren Electro 242-2

- Conductive

- Silopren LSR 2345/06
- Silopren LSR 2345/07 – SPRAY/PAINTED

Cold Shrink Joints and Terminations

- Insulative

- Silopren LSR 2030
- Silopren Electro* 641
- Silopren Electro* 242-3

- Conductive

- Silopren LSR 2345/06
- Silopren LSR 2345/07 – SPRAY/PAINTED

HVDC

- Insulative

- Silopren LSR 646GS

- Conductive

- Silopren LSR 2345/06
- Silopren LSR 2345/07 – SPRAY/PAINTED



Insulators and Surge Arrestors

Silicones for outdoor insulators like long rods, line posts, hollow core or surge arrester housings are exposed to high electrical and environmental stress. Thanks to the hydrophobic surface, silicone composite insulators provide a high flashover resistance. Hydrophobicity and the dynamic properties like hydrophobicity recovery or transfer are key to providing the added value of enhanced pollution performance, no matter if it is LSR or HCR.

All LSR and HCR formulation recommended for outdoor insulating are designed to pass IEC 60597 1A 4.5 rating for tracking and erosion resistance.

- Stable performance and high reliability
- Wide range of voltages and applications
- Proven performance even in severe conditions
- Reduced likelihood of explosive accidents
- Lightweight design and easy installation
- High and long-term stable hydrophobicity
- High arc and tracking resistance
- Weatherability stability against UV, humidity
- Superior pollution performance (hydrophobic transfer mechanism)

Silicone Hollow Core Insulators

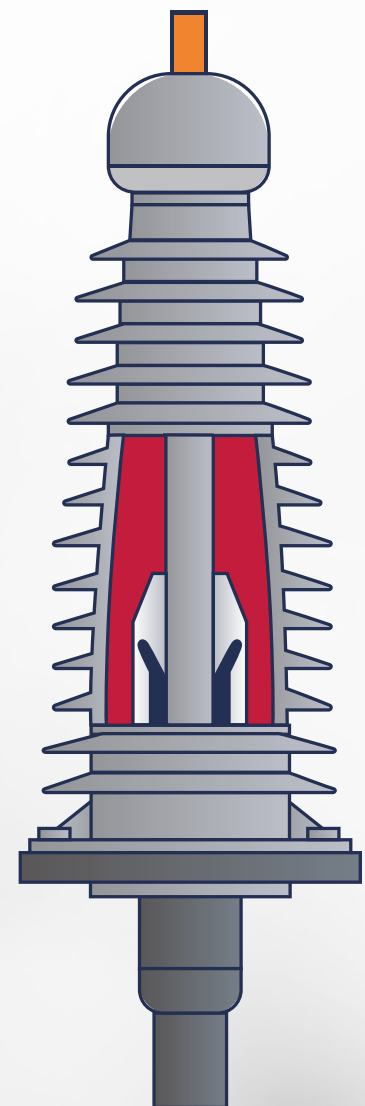
Liquid Silicone Rubber: Electro 242-1
Heat Cured Rubber: Electro 1700, Electro 170 (Peroxide)

Silicone Insulators

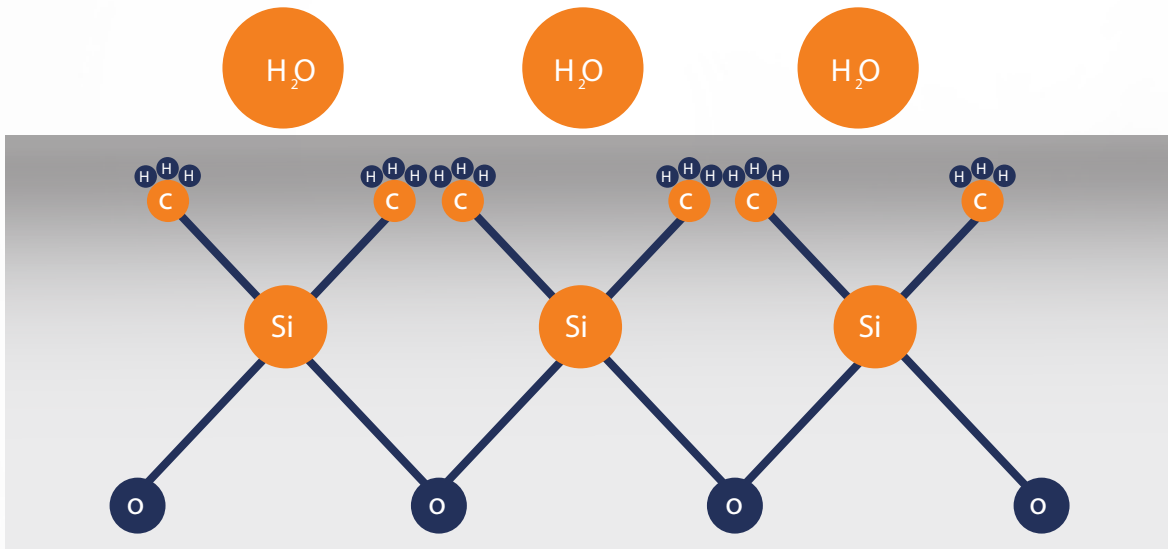
Liquid Silicone Rubber: Electro 242 & 342 Series
Heat Cured Rubber: Electro 1700, Electro 170 (Peroxide)

Silicone Surge Arrestor

Liquid Silicone Rubber: Electro 242 & 342 Series
Heat Cured Rubber: Electro 1700, Electro 170 (Peroxide)



Hydrophobicity



Is the key feature of silicone elastomers used for the housing of outdoor high voltage insulators. It is preventing the formation of surface leakage currents resulting in flashovers even if the insulator is covered with a conductive dirt (e.g. sea salt).

While all polymers are hydrophobic in the initial state, stress like pollution layers (salt, dirt), corona, discharges, chemical stress (also water) are factors that will reduce and even eliminate hydrophobicity of polyester, epoxid or EPDM. For silicone only excessive corona and strong discharges will influence the hydrophobicity locally. And even better, after a short time the hydrophobicity recovers to the initial state. The main reasons for this recovery are the migration of mobile siloxanes, LMW (low molecular weight) poly(dimethylsiloxanes) from the bulk of the materials to the surface, cleavage of polymer chains, and reorientation of methyl groups to the surface. The migration to the surface enables the LMW to encapsulate pollution layers and to cover hydrophilic (or wettable) regions on the surface.



04 Consumer Goods & Electronics

Our portfolio of products is used in a wide variety of consumer goods and home appliances. Momentive's silicone products can provide heat resistance, flame retardancy and moisture/dirt protection, making them excellent choices to consider for a variety of sealing, bonding and insulating applications.

Typical applications include:

- Infant care products
- Bakeware
- Kitchen utensils
- Gasketing
- Advanced aesthetics
- Seals
- Tubes
- Emblems
- Membranes
- Textile coating
- Shoe inserts



Electronics

The electronics industry encompasses a broad range of devices and components that present a wide spectrum of material performance requirements. Momentive Performance Materials' expansive portfolio of silicones offers an array of potential solutions for a variety of applications, including:

- LED
- Mobile phones
- Portable/wearable electronic devices
- Home networking and entertainment equipment
- Document handling systems
- Computers, laptops and peripherals
- Displays and projectors
- Keypads
- Optics and Lighting
- Gaskets
- Rollers

As the design trend of such equipment undergoes miniaturization, the excellent transparency or the high thermal conductivity properties and low hardness that our elastomer can offer become increasingly crucial to the success of equipment reliability and performance.

If the right material doesn't exist already, we may be able to custom compound a solution to meet your application's precise demands.



Consumer Goods & Electronics Product Overview

Consumer Electronics

- Self-Bonding LSR
- Silopren LSR 27X9 series

Infant Care

- Fast Cure – High Tear
- Silopren LSR 26x0 series

Food Contact / BfR

- Silopren LSR 20x0 series
- Silopren LSR 26x0 series

Potable Water Standards

- Silopren LSR 20x0 series
- Silopren LSR 26x0 series

Specialty Coatings : Low COF

- LSR Topcoat



Liquid Silicone Rubber (LSR)

Our family of LSR is a versatile class of liquid silicone rubbers. LSR is a two-component, platinum (addition/heat) curable and pumpable silicone elastomer that can be molded and cured with very fast cycle times at elevated temperatures.

The molding process allows complex part geometry and exact dimensions. LSR can enable short cycle time injection and fully automatic flash-less and trim-free manufacturing.

This family of products can offer:

- Fast cycle times
- High clarity
- High tear strength
- Self-bonding options
- Broad range of durometers (3 to 80 Shore A)
- Self-lubrication
- Fluorinated
- Electrical conductivity



Liquid Silicone Rubber

Grades **General Purpose**

Product Name	BFR ^a	FDA Indirect Food Contact ^b	European Pharmacopoeia ^c	UL Listing	Potable Water Standards ^d	Appearance	Density g/cm ³	Hardness/Durometer Shore A	Tensile Strength MPa	Elongation %	Tear Strength, Die B N/mm	Compression Set, 22h at 175 °C (post-cured)
General Purpose												
Silopren LSR 2003	+		-	-	-	Transparent	1.05	50 ¹	3	500	4	20
Silopren LSR 2010	+	•	-	-	-	Transparent	1.07	8	3	970	6	15
Silopren LSR 2020	+	•	-	-	-	Transparent	1.08	22	6	1000	15	20
Silopren LSR 2030	+	•	•	UL94HB	•	Transparent	1.10	31	8	800	18	15
Silopren LSR 2040	+	•	•	UL94HB	•	Transparent	1.12	40	9	750	25	25
Silopren LSR 2050	+	•	•	UL94HB	•	Transparent	1.12	51	10	600	35	25
Silopren LSR 2060	+	•	•	UL94HB	•	Transparent	1.13	60	10	450	30	25
Silopren LSR 2070	+	•	•	UL94HB	•	Transparent	1.14	70	9	400	20	25
Silopren LSR 2080	+	•	•	-	•	Transparent	1.13	79	7	150	5	25
Fast Cure / High Tear												
Silopren LSR 2610	+	+	-	-	-	Transparent	1.04	16	3	560	9	12
Silopren LSR 2620	+	•	-	-	-	Transparent	1.08	24	5	600	20	20
Silopren LSR 2630	+	•	-	UL94HB	•	Transparent	1.10	32	8	700	35	15
Silopren LSR 2640	+	•	-	UL94HB	•	Transparent	1.12	42	8	600	40	25
Silopren LSR 2650	+	•	-	UL94HB	•	Transparent	1.12	52	10	550	50	25
Silopren LSR 2660	+	•	-	UL94HB	•	Transparent	1.13	62	9	400	45	20
Silopren LSR 2665	+	+	-	-	-	Translucent	1.13	65	10.5	400	50	25
Silopren LSR 2670	+	•	-	UL94HB	•	Transparent	1.13	69	9	350	30	20
UV LSR General Purpose²												
Silopren UV LSR 2030	+	•	-	-	-	Translucent	1.10	28	8.0	750	20	-
Silopren UV LSR 2060	+	•	-	-	-	Translucent	1.15	59	13.0	500	25	-
High Tear Infant Care												
Silopren LSR 2645	+	•	-	-	-	Transparent	1.14	47	11	700	42	25
Silopren LIM 6045	+	•	-	-	-	Transparent	1.12	44	9	650	39	-

Typical physical properties are average data and are not to be used as or to develop product specifications.

All LSR grades are platinum cured materials. The mixing ratio is 1:1 by weight, except for the UV-curing LSR the mixing ratio is 100:2.

a Based on listing of ingredients in the BFR recommendation XV "Silicones".

a1 Producer of the final article needs to test and confirm that the final product meets the analytical and extractive requirements of BFR XV.

b Based on compositional compliance with the requirements of 21 CFR 177.2600 – Rubber articles intended for repeated use and have been found, through extractive testing of a representative sample, to meet the extractives limitations in 21 CFR 177.2600(e) and/or (f).

b1 It is the responsibility of the user to determine that the final product complies with the extractive limitations and other requirements of 21 CFR 177.2600 under their specific manufacturing procedures.

c Based on testing conducted on a representative sample of a single lot of the product as per the test requirements of EP. 3.1.9.

d Based on testing conducted on a representative sample of the product, as per the requirements of KTW, WRAS and W270. Please contact the Product Regulatory Group for details.

¹ Tested using Shore 00 scale.

² Laboratory Vulcanization Conditions: exposure to a Hg-(Fe-doped) middle pressure lamp for 2 min at 80 mW/cm² intensity, without further heat curing.

• = Meets the requirements for passing the test standard, - = Not tested, + = product is compositionally compliant, o = Does not meet the requirements of Rubber Articles Intended for Repeated Use, 21 CFR 177.2600.

Liquid Silicone Rubber Grades Self-Lubricating

Product Name	UL Listing	Appearance	Density g/cm ³	Hardness/Durometer Shore A	Tensile Strength MPa	Elongation %	Tear Strength, Die B N/mm	Compression Set, 22h at 175 °C (non-post-cured)
Low Compression Set								
Silopren LSR 3486/20 TP 3648	-	Whitish	1.1	20	6.8	760	12	18
Silopren LSR 3786/20 TP 3944	-	Whitish	1.11	19	6.5	740	14	30
Silopren LSR 3386/30 TP 3616	UL94HB	Whitish	1.12	32	9.2	720	18	25
Silopren LSR 3286/40 TP 3649	-	Translucent	1.12	41	8	620	41	25
Silopren LSR 3386/40	-	Whitish	1.12	41	8.8	620	35	20
Silopren LSR 3186/50 TP 3651	-	Translucent	1.12	49	9.7	600	43	25
Silopren LSR 3286/50 TP 4224	UL94HB	Translucent	1.12	50	8.7	560	45	20
Silopren LSR 3486/50 TP 4268	-	Whitish	1.12	51	8.1	540	44	25
Silopren LSR 3286/60 TP 0125	UL94HB	Translucent	1.14	61	9.6	480	52	20
Silopren LSR 3286/70 TP 3650	UL94HB	Translucent	1.14	69	10.5	420	37	20
Ultra Low Compression Set								
Silopren LSR 3696/25	-	Whitish	1.08	24	6.5	710	12	19
Silopren LSR 3596/30	-	Whitish	1.1	30	8	700	26	15
Silopren LSR 3596/35	-	Whitish	1.11	34	8.5	700	31	15
Low Compression Set / Low Volatile								
Silopren LSR 3376/50	-	Whitish	1.13	50	9.5	600	43	16
Low Long Term Compression Set / High Heat Stability								
Silopren LSR 3366/50	-	White	1.13	52	8.6	450	40	11

Typical physical properties are average data and are not to be used as or to develop product specifications.



Liquid Silicone Rubber Grades **Self-Bonding**

Product Name	BFR ^a	FDA Indirect Food Contact ^b	European Pharmacopoeia ^c	UL Listing	Potable Water Standards ^d	Appearance	Density g/cm ³	Hardness/Durometer Shore A	Tensile Strength MPa	Elongation %	Tear Strength, Die B/N/mm	Compression Set, 22h at 150 °C (non-post-cured)
Self-Bonding / General Purpose												
Silopren LSR 2730	-	-	-	-	-	Translucent	1.10	30	8	750	15	19
Silopren LSR 2740	-	•	-	-	-	Translucent	1.12	38	9.3	700	20	25 ¹
Silopren LSR 2750	-	-	-	-	-	Translucent	1.12	50	10	650	30	-
Self-Bonding / Drinking Water												
Silopren LSR 2742	-	-	-	-	•	Translucent	1.12	40	8	550	35	-
Self-Bonding / Special Purpose												
LIM 8040	-	-	-	-	-	Translucent	1.08	43	5	390	37	>50
LIM 9071 ET	-	-	-	-	-	Translucent	1.11	70	6	250	17	30
Self-Bonding / Adhesion to PC / FDA Compliance												
Silopren LSR 2739	-	•	-	-	-	Translucent	1.10	32	8	650	30	-
Silopren LSR 2749	-	•	-	-	-	Translucent	1.10	39	7	600	40	-
Silopren LSR 2759	-	•	-	-	-	Translucent	1.10	53	7.5	430	46	-
Silopren LSR 2769	-	•	-	-	-	Translucent	1.14	61	9	500	43	-
Self-Bonding / Self-Lubricating												
Silopren LSR 2725/40	-	-	-	-	-	Translucent	1.11	42	7	530	34	20

Typical physical properties are average data and are not to be used as or to develop product specifications. Typical physical properties are average data

All LSR grades are platinum cured materials which are mixed in a 1:1 ratio by weight a Based on listing of ingredients in the BFR recommendation XV "Silicones".

a1 Producer of the final article needs to test and confirm that the final product meets the analytical and extractive requirements of BFR XV.

b Based on compositional compliance with the requirements of 21 CFR 177.2600 – Rubber articles intended for repeated use and have been found, through extractive testing of a representative sample, to meet the extractives limitations in 21 CFR 177.2600(e) and/or (f).

b1 It is the responsibility of the user to determine that the final product complies with the extractive limitations and other requirements of 21 CFR 177.2600 under their specific manufacturing procedures. c Based on testing conducted on a representative sample of a single lot of the product as per the test requirements of EP. 3.1.9.

d Based on testing conducted on a representative sample of the product, as per the requirements of KTW and W270. Please contact the Product Regulatory Group for details.

¹ Measured without postcuring, 22 h at 150 °C.

- = Meets the requirements for passing the test standard, - = Not tested, + = product is compositionally compliant.

Additional information may be contained on the technical datasheet.

For custom opportunities, please contact your local Momentive sales representative.

*Trademark of Momentive Performance Materials Inc. or its affiliates.



Liquid Silicone Rubber Grades

Fluorosilicones

Momentive fluorosilicone elastomers are used in almost all industries ranging from automotive and aircraft industry to chemical processing including oil and gas exploration. Fluorosilicones are used for sealing applications in the aerospace industry requiring resistance to hot fuels, oils, and diester based lubricants. They are often a good choice for static sealing systems for a wide temperature range.

Applications include:

Automotive

Components such as seals, O-rings, quick-connect seals, gaskets, diaphragms, membranes, flexible valves, and turbocharger hose liners

Aviation/Aerospace

Parts including gaskets, seals, hoses, bellows and connectors

Railway

Parts including gaskets, seals, hoses, bellows and connectors

Petrochemical/Oil & Gas

Components, such as sealing elements for pumps, valves and pipelines exposed to liquid or gas hydrocarbons or corrosive chemicals

Industrial

Gaskets exposed to high temperature condition in addition to oil or solvents

Product Name	BfR ^a	FDA Indirect Food Contact ^b	European Pharmacopoeia ^c	Appearance	Density g/cm ³	Hardness/Durometer Shore A	Tensile Strength MPa	Elongation %	Tear Strength, Die B N/mm	Compression Set, 22h @ 175 °C (post-cured)
Fluorinated LSR										
FSL 7586/40	-	-	-	Translucent	1.23	40	6	380	20	17

Typical physical properties are average data and are not to be used as or to develop product specifications.

All LSR grades are platinum cured materials which are mixed in a 1:1 ratio by weight

a Based on listing of ingredients in the BfR recommendation XV "Silicones".

a1 Producer of the final article needs to test and confirm that the final product meets the analytical and extractive requirements of BfR XV.

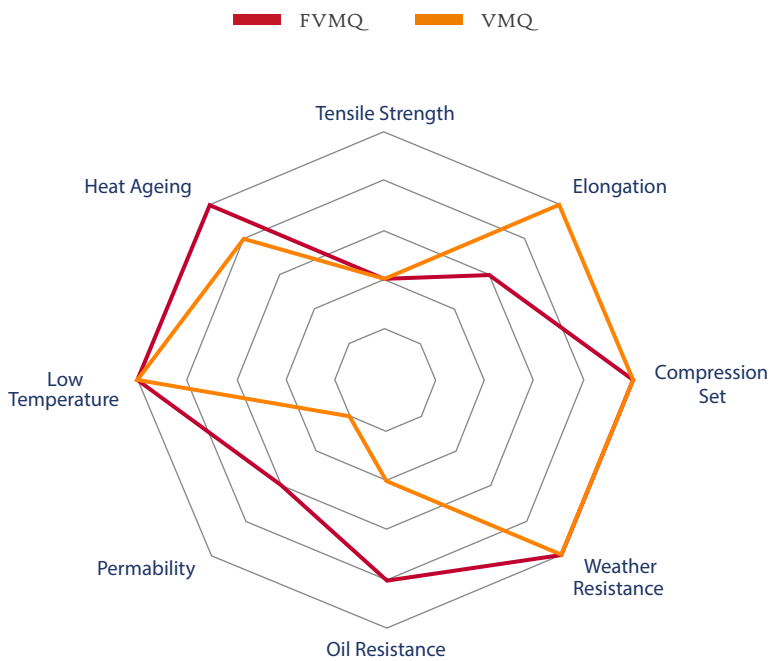
b Based on compositional compliance with the requirements of 21 CFR 177.2600 – Rubber articles intended for repeated use and have been found, through extractive testing of a representative sample, to meet the extractives limitations in 21 CFR 177.2600(e) and/or (f).

b1 It is the responsibility of the user to determine that the final product complies with the extractive limitations and other requirements of 21 CFR 177.2600 under their specific manufacturing procedures.

c Based on testing conducted on a representative sample of a single lot of the product as per the test requirements of EP. 3.1.9.

• = Meets the requirements for passing the test standard, - = Not tested, + = product is compositionally compliant.

For custom opportunities, please contact your local Momentive sales representative.



Primary uses of Momentive fluorosilicones are in fuel systems at temperatures up to +177°C (+350°F) and in demanding applications where the dry-heat resistance of the elastomer is required (+204°C/400°F). Fluorosilicones may also be exposed to petroleum based oils and/or hydrocarbon fuels. In some fuels and oils; however, the high temperature limit in the fluid list is more conservative because fluid temperatures approaching 200°C (390°F) may degrade the fluid, producing acids which can attack fluorosilicone. For low temperature applications, fluorosilicones seal at temperatures as low as -73°C (-100°F).

Silicones (VMQ) have good heat resistance and cold flexibility, weathering resistance, and good insulating properties. Compared to silicone, fluorosilicones (FVMQ) have fluorinated side chains for good oil and fuel resistance.

- Excellent thermal and heat stability properties
- Outstanding cold flexibility when compared against other fluoro elastomers
- Excellent weather, aging and ozone stability
- Good resistance in oils and hydraulic fluids
- Temperature range from -50 °C to +200 °C



Liquid Silicone Rubber (LSR) for Healthcare

Product Name	USP Class VI	ISO10993 ^b European Pharmacop	Appearance	Density g/cm	Hardness/Du Shore A	Tensile Stren	Elongation %	Tear Strength N/mm	Compression Set, 22h at 1/5 °C (post-cured)	
Healthcare										
Silopren LSR 4020	•	•	-	Translucent	1.08	22	7.0	1000	15	20
Silopren LSR 4030	•	•	•	Translucent	1.10	31	8.0	800	18	15
Silopren LSR 4040	•	•	•	Translucent	1.12	40	9.0	750	25	25
Silopren LSR 4050	•	•	•	Translucent	1.12	51	10.0	600	35	25
Silopren LSR 4060	•	•	•	Translucent	1.13	60	10.0	450	30	25
Silopren LSR 4070	•	•	•	Translucent	1.14	70	9.0	400	20	25
Silopren LSR 4080	•	•	•	Translucent	1.13	79	7.0	150	5	25
Fast Cure/High Tear										
Silopren LSR 4640	•	•	-	Translucent	1.12	42	8.0	600	45	25
Silopren LSR 4650	•	•	-	Translucent	1.12	52	10.0	550	50	25
Silopren LSR 4660	•	•	-	Translucent	1.13	62	9.0	400	45	20
Silopren LSR 4670	•	•	-	Translucent	1.13	69	10.0	350	30	20
LIM 6010	•	•	-	Translucent	1.05	15	3.0	440	10	-
LIM 6030	•	•	-	Translucent	1.12	35	9.0	675	31	-
LIM 6040	•	•	-	Translucent	1.12	42	9.0	600	39	-
LIM 6045	•	•	-	Translucent	1.12	44	9.0	650	39	-
LIM 6050	•	•	-	Translucent	1.12	53	9.0	530	43	-
UV LSR										
Silopren UV LSR 4030	•	•	-	Translucent	1.10	28	8.0	750	20	-
Silopren UV LSR 4060	•	•	-	Translucent	1.15	59	13.0	500	25	-
Self-Lubricating										
Silopren LSR 4625 SL	▲	▲	-	Translucent	1.09	25	6.6	758	24	-
Silopren LSR 4635 SL	▲	▲	-	Translucent	1.10	35	7.3	627	40	-
Silopren LSR 4645 SL	▲	▲	-	Translucent	1.12	45	8.0	517	50	-
Silopren LSR 4655 SL	•	•	-	Translucent	1.13	55	8.0	450	45	-
Silopren LSR 4665 SL	▲	▲	-	Translucent	1.13	65	9.1	412	30	-
Self-Bonding to PC, PBT and copolyesters										
Silopren LSR 4739	•	•	-	Translucent	1.1	30	8.0	700	40	-
Silopren LSR 4749	•	•	-	Translucent	1.1	41	7.0	570	40	-
Silopren LSR 4759	▲	▲	-	Translucent	1.11	51	7.0	400	40	-
Silopren LSR 4769	▲	▲	-	Translucent	1.14	61	9.0	500	43	-
Self-Bonding to other substrates										
LIM 8040	•	-	-	Translucent	1.08	43	5.0	390	37	-
CLS 8150	•	•	-	Translucent	1.10	52	8.0	515	34	-
CLS 5000	•	•	-	Translucent	1.12	67	11.0	460	44	-
CLS 3060	•	•	-	Translucent	1.12	59	11.0	500	35	-
Radio Opaque (X-Ray Detectability)										
LIM 6041	•	-	-	White	1.19	45	7.0	700	32	-
Antimicrobial										
StatSil LSR	Momentive's StatSil technology can be added to our LSR as a custom compound									

Typical properties are average data and are not to be used as or to develop specifications.

- a Based upon USP Class VI testing, on a representative sample of the product, for intramuscular implantation, intracutaneous injection and systemic injection. For some products, additional testing has been conducted. Please contact the Product Regulatory Group for details.
b Based upon ISO 10993 part 6, 10, and 11 testing conducted on a representative sample of the product. For some products additional testing has been conducted. Please contact the Product Regulatory Group for details.
c Based on testing conducted on a representative sample of a single lot of the product as per the test requirements of EP. 3.1.9. • = Meets the requirements for passing the test standard, + = Product is compositionally compliant, - = Not tested. ▲ = a representative sample analogous to this grade has been tested.

Liquid Silicone Rubber Grades High Voltage Industry

Product Name	Platinum	Tracking Resistance kV	Mix Ratio by Weight	Appearance	Density g/cm ³	Hardness/ Durometer Shore A	Tensile Strength MPa	Elongation %	Tear Strength, Die B N/mm	Volume Resistivity Ωcm	Surface Resistivity Ω (0,15mm)	UL Listing UL94 V0-3mm
Electrically Insulating												
Electro 242-1	✓	4.5	1 : 1	Grey + Translucent	1.06	32	6	620	16	-	-	-
Electro 242-2	✓	4.5	1 : 1	Grey + Translucent	1.08	36	8	720	27	-	-	-
Electro 242-3	✓	4.5	1 : 1	Translucent	1.11	40	9	770	40	-	-	-
Electro 342-15 FR	✓	4.5	1 : 1	Grey	1.08	37	7	530	24	-	-	-
Cable Accessories Cold Shrink												
Electro 641	✓	4.5	1 : 1	Translucent	1.12	43	10	720	35	-	-	-
Electrically-Conductive												
LSR 2345/06	✓	-	1 : 1	Black	1.08	40	7	650	40	45	-	-
Specialty Coatings												
LSR 2345/07	✓	-	1 : 1	Black	Physical properties subject to the substrate used				-	230	-	-
UV Electro 1												
UV Electro 225-1	✓	3.5	100:2	Translucent	1.07	25	4.5	580	90	-	-	-

Typical physical properties are average data and are not to be used as or to develop product specifications. Typical physical properties are average data

¹ Laboratory Vulcanization Conditions: exposure to a Hg-(Fe-doped) middle pressure lamp for 2 min at 80 mW/cm² intensity, without further heat curing
 - = Tested with positive results, - = Not tested, + = product is compositionally compliant

All LSR grades are platinum cured materials which are mixed in a 1:1 ratio by weight
 - = Meets the requirements for passing the test standard, - = Not tested, + = product is compositionally compliant
 Denotes catalyst system
 Additional information may be contained on the technical datasheet.
 For custom opportunities, please contact your local Momentive sales representative.



Liquid Silicone Rubber Grades Specialties

Product Name	BFR ^a	FDA Indirect Food Contact ^b	European Pharmacopoeia ^c	UL Listing	Potable Water Standards ^d	Appearance	Density g/cm ³	Hardness/Durometer Shore A	Tensile Strength MPa	Elongation %	Tear Strength, Die B N/mm	Compression Set, 22h @175 °C (post-cured)
Textile Coating												
Silopren LSR 2530	+	-	-	UL94HB	-	Translucent	1.05	30	4	500	10	-
Silopren LSR 2540	+	+	-	UL94HB	-	Translucent	1.08	40	7	500	25	20
Silopren LSR 2560	+	+	-	-	-	Translucent	1.08	60	7	300	7	-
Good Flex Life												
Silopren LSR 2841	+	-	-	UL94HB	-	Transparent	1.07	40	6	550	21	-
Spark Plug Boots Automotive												
Silopren LSR 2660 ZKS Trans	-	-	-	-	-	Transparent	1.13	60	11.4	500	39	20 ¹
Ultra Clear LSRs												
Silopren LSR 7005	-	-	-	-	-	Optically Clear	0.98	5	0.3	210	-	-
Silopren LSR 7180	-	-	-	UL746C f1	-	Optically Clear	1.06	76	10.8	80	8	-
Specialty Coatings												
LSR TOPCOAT TP 3719	+	●	-	-	-	Matte	Physical properties subject to the substrate used					

Typical physical properties are average data and are not to be used as or to develop product specifications.

All LSR grades are platinum cured materials which are mixed in a 1:1 ratio by weight.

a Based on listing of ingredients in the BFR recommendation XV "Silicones".

a1 Producer of the final article needs to test and confirm that the final product meets the analytical and extractive requirements of BFR XV.

b Based on compositional compliance with the requirements of 21 CFR 177.2600 – Rubber articles intended for repeated use and have been found, through extractive testing of a representative sample, to meet the extractives limitations in 21 CFR 177.2600(e) and/or (f).

b1 It is the responsibility of the user to determine that the final product complies with the extractive limitations and other requirements of 21 CFR 177.2600 under their specific manufacturing procedures.

c Based on testing conducted on a representative sample of a single lot of the product as per the test requirements of EP. 3.1.9

1 Non post-cured

2 = Based on testing conducted on a representative sample of an analogous product, as per the requirements of KTW, WRAS and W270. Differing results would not be expected for this product.

LSR Color Pastes



Maize Yellow
RAL 1007
Pantone 130 C
1.00 g/cm³



Yellow
RAL 1016
Pantone 604 C
1.15 g/cm³



Vermilion
RAL 2002
Pantone 179 C
1.02 g/cm³



Orange New
RAL 2004
Pantone 021 C
1.03 g/cm³



Reddish Brown
RAL 3011
Pantone 484 C
1.14 g/cm³



Red
RAL 3020
Pantone 285 C 2X
1.02 g/cm³



Wine Red
RAL 3027
Pantone 200 C
1.05 g/cm³



Ultramarine Blue
RAL 5002
Pantone 2738 C
1.18 g/c



Blue
RAL 5005
Pantone 2945 C
1.12 g/cm³



Green
RAL 6010
Pantone 364 C
1.16 g/cm³



Light Green
RAL 6032
Pantone 356 C
1.12 g/cm³



Grey
RAL 7000
1.11 g/cm³



Light Grey
RAL 7040
1.14 g/cm³



Brown
RAL 8011
Pantone 469 C
1.10 g/cm³



White
RAL 9010
1.18 g/cm³



Black
RAL 9005
Pantone 4 C 2X
0.98 g/cm³

Color pastes are available to pigment addition cure products such as LSRs. The recommended quantity of color to add is 0.5% to 2%, depending on the desired depth of color. The use of Momentive's color additives should not affect the performance properties of our products.

The UV Curing Silicone Rubbers from Momentive can be colored with most of the standard colors. In most cases the curing time is extended compared to the transparent silicone rubbers. Please contact our technical experts for more information.

Coatings, Additives and Primers

Coatings

Silopren LSR 2345/07 Conductive Coating

LSR Topcoat TP 3719
Low Surface Friction Coating /
USP Class VI Compliancy

Additives / Primers

General Additives

Color Paste Additive	U	
Hardness Additive		TP 3547
Bonding Additive		TP 3662
Reactive Additive		TP 3581
Modulus Additive		TP 3813
Heat Stab. Additive		TP 3605
Inhibitor Additive		TP 3660
Oil-Resistance Additive	LIM BG1	

Primers

Bonding Agent 1-0
Bonding Agent 1-1 Bonding
Agent BA 2 XP81-A6361
XP81-C5262



Heat Cured Rubber (HCR)

Our HCR portfolio includes both peroxide and platinum (addition/ heat) curable silicone elastomers. Typical processes include extrusion, calendaring and molding (injection, compression, transfer).

Momentive provides base materials and ready-to-use compounds.

This family of products offers:

- Enhanced mechanical performance
- High clarity
- Low hysteresis and high resilience coupled with low compression set for highly mechanical operations
- One component, ready-to-use options
- Broad range of durometers

Customized Silicones

The material you choose should fit the application. Momentive's elastomer formulation services can help you identify a material engineered to the performance, processing, and production demands unique to your requirements. Drawing from an extensive product portfolio and technical expertise, Momentive can create specialized products in a fast and flexible manner. Examples of these services include:

- Improved heat age performance
- V-0 and V-1 flame retardancy
- Customized cure/rheological profiles
- Incorporation of specialty additives such as barium sulfate for radio-opacity
- Color matching
- Tailored performance attributes
- Electrically conductive or semi-conductive formulations



HCR General Purpose

Product Name	Platinum Peroxide	Appearance	Density g/cm ³	Hardness/ Durometer Shore A	Tensile Strength MPa	Elongation %	Tear Strength, Die B N/mm	Tear Strength, angle N/mm	Key Features	
Electro Conductive										
XE23-703U	-	✓	Black	1.20	70	6	240	-	16	Vol. Res. 3 Ω x cm
XE23-B2484	-	✓	Black	1.21	75	7.2	180	-	20	Vol. Res. 2 Ω x cm
High Voltage Insulating										
Electro 170	-	✓	Grey	1.57	70	5.5	250	16	-	Excellent tracking and erosion resistance (1A 4.5kV); improved hydrophobicity
Electro 1700	✓	-	Grey	1.58	70	5.2	270	20	-	
Steam Resistant										
HV 6/600	-	✓	Translucent	1.11	62	8	230	13	-	Increased steam resistance

Typical physical properties are average data and are not to be used as or to develop product specifications.

Denotes catalyst system
Additional information may be contained on the technical datasheet. For custom opportunities, please contact your local Momentive sales representative.



Heat Cured Rubber (HCR) for Healthcare

Product Name	USP Class VI ^a	ISO10993 ^b	European Pharmacopoeia ^c	Appearance	Density g/cm ³	Hardness/Durometer Shore A	Tensile Strength MPa	Elongation %	Tear Strength, Die B N/mm
Addisil Extrusion									
140 E	•	•	•	Translucent	1.15	45	10.0	700	35
150 E	•*	•*	•	Translucent	1.15	52	10.0	650	36
160 E	•	•	•	Translucent	1.16	61	10.5	530	32
170 E	•	•	•	Translucent	1.20	71	9.5	470	32
440 E/442 E	•	•	-	Translucent	1.13	40	11.5	800	35
450 E/452 E	▲	•	-	Translucent	1.14	50	11.5	800	43
460 E/462 E	▲	•	•/▲	Translucent	1.14	60	11.0	600	37
470 E/472 E	▲	•	•/▲	Translucent	1.17	72	10.5	500	41
480 E/482 E	▲	•	-	Translucent	1.19	81	9.0	400	30
NC452E	•	•	-	Translucent	1.13	50	10	750	35
NC462E	•	•	-	Translucent	1.15	60	10	550	35
NC472E	•	•	-	Translucent	1.18	70	10	450	35
NC482E	•	•	-	Translucent	1.20	80	8.5	450	15
Tufel II Extrusion or Molding									
9420X	•	-	-	Translucent	1.07	22	8.2	1000	22
9430X	•	-	-	Translucent	1.10	28	9.3	1050	30
9440X	•	-	-	Translucent	1.11	43	9.6	780	40
9450X	•	-	-	Translucent	1.15	52	9.7	880	47
9460X	•	-	-	Translucent	1.19	62	8.6	690	46
9470X	•	-	-	Translucent	1.22	72	9.2	580	57
Tufel III Low Hysteresis/ High Resilience									
92506	•	•	-	Translucent	1.12	50	7.6	500	18
92656	•	•	-	Translucent	1.14	65	8.9	350	21
Low Service Temperature									
Tufel 150 LT	•	•	•	Translucent	1.19	50	9	680	50
UV Extrusion									
Addisil UV 260 EX	•	•	-	Translucent	1.17	60	10.5	580	47
Radio Opaque (X-Ray Detectability)									
Addisil 60 X-Ray Detectability	▲	▲	-	White	1.27	60	9	600	35
Antimicrobial									
StatSil HCR	Momentive's Statsil can be added to our HCRs as a custom compound								

N 4X2E Series - APAC ONLY

The aforementioned test results are average data derived from a sampling of a finite number of lots of material. While lot-to-lot variance would not be expected to show significantly different results, these average data are not to be used as or to develop product specifications. It is the user's sole responsibility to determine the suitability and safety of any Momentive material in its end use application.

All LSR grades are platinum cured materials. The mixing ratio is 1:1 by weight, except for the UV-curing LSR the mixing ratio is 100:2. Laboratory Vulcanization Conditions: exposure to a Hg-(Fe-doped) middle pressure lamp for 2 min at 80 mW/cm² intensity, without further heat curing

a Based upon USP Class VI testing, on a representative sample of the product, for intramuscular implantation, intracutaneous injection and systemic injection. For some products, additional testing has been conducted. Please contact the Product Regulatory Group for details.

b Based upon ISO 10993 part 6, 10, and 11 testing conducted on a representative sample of the product. For some products additional testing has been conducted. Please contact the Product Regulatory Group for details.

c Based on testing conducted on a representative sample of a single lot of the product as per the test requirements of EP 3.1.9. • = Meets the requirements for passing the test standard, + = Product is compositionally compliant, - = Not tested. ▲ = a representative sample analogous to this grade has been tested.

*Testing in progress, final results pending.

Additional information may be contained on the technical datasheet. For custom opportunities, please contact your local Momentive sales representative.
*Trademark of Momentive Performance Materials Inc. or its affiliates

Other Specialty Silicones for Healthcare

Product Name	USP Class VI ^a	ISO10993 ^b	BFR ^c	FDA Indirect Food Contact ^d	European Pharmacopoeia ^e	Appearance	Density g/cm ³	Hardness/Durometer Shore A	Tensile Strength MPa	Elongation %	Tear Strength, Die B N/mm	Compression Set % (post cured)
Soft Touch LSRs												
LSR 2003	•	•	+	○	-	Translucent	1.05	<8	3.0	500	4	20
LSR 2010	•	•	+	•	-	Translucent	1.07	8	3.0	970	6	15

Product Name	USP Class VI ^a	ISO10993 ^b	Description	Density g/cm ³	Hardness/Durometer Shore A	Tensile Strength MPa	Elongation %
Silicone Adhesives and Encapsulants							
RTV108	•	•	1- part acetoxo, translucent, paste adhesive	1.05	30	2.7	450
RTV118	•	•	1 -part acetoxo, translucent, flowable adhesive	1.05	25	2.3	325
RTV615	•	•	2-part, heat cured, flowable encapsulant	1.02	44	6.3	120

Product Name	USP Class VI ^a	ISO10993 ^b	Viscosity	Working time at 23 °C ⁽¹⁾	Penetration ⁽²⁾	Peel Force on Bristol Paper ⁽³⁾
Silicones for Advanced Wound Care and Scar Therapy						
Silopren Gel 4900 – Scar Gel	•	•	A-Component 950 mPas at 20°C B-Component 650 mPas at 20°C	180 min	95 mm/10	0.9 N/25 mm
Silopren Gel 4950 – Wound Gel	•	•	A-Component 10,000 mPas at 20°C B-Component 9,000 mPas at 20°C	180 min	135 mm/10	1.7 N/25 mm
Silopren Gel 4970 – Wound Gel	•	•	A-Component 35,000 mPas at 20°C B-Component 27,000 mPas at 20°C	100 min	195 mm/10	3.4 N/25 mm

All Gels tested for the below:

Cytotoxicity: Agar Diffusion (ISO 10993-5), MEM Elution (ISO 10993-5)

USP Class VI & ISO 10993 (6, 10, & 11): Systemic toxicity, Intracutaneous toxicity, implantation (14 days)

Clinical Testing: HRIPT (Human Repeat Insult Patch Test), CIT (Cumulative Irritation Test) (14 days)

- Each 10 degree increase in ambient temperature reduces the working time approximately by half.
- Cured for 60 minutes at 110°C; hollow cone; 62.5 gr, 60 sec
- Internal test method: 180° Peel-off test; Bristol paper as substrate; thickness ca. 150µm.

Typical properties are average data and are not to be used as or to develop specifications.

HCR Addition Curing Portfolio

Addisil Industrial Grades

Product Name	Platinum	BfR ^a	FDA Indirect Food Contact ^b	KTW ^c	WRAS ^d	W270 ^e	Appearance	Density g/cm ³	Hardness/ Durometer Shore A	Tensile Strength MPa	Elongation %	Tear Strength, Die B N/mm
Addisil Industrial Extrusion												
1040 E'/2040 E ³		+	+	-	•	-	Transparent	1.13	40	11	800	35
1050 E'/2050 E ³		+	+	-	•	-	Transparent	1.14	50	11.5	800	40
1060 E'/2060 E ³		+	+	•	•	•	Transparent	1.15	60	11	600	37
1070 E'/2070 E ³		+	+	•	•	•	Transparent	1.17	72	11	450	35
1080 E'/2080 E ³		+	+	•	•	•	Transparent	1.21	80	8.5	350	24
Addisil Industrial Molding												
1140 M4		+	•	-	-	-	Translucent	1.12	42	12	950	40
1150 M4		+	+	-	-	-	Translucent	1.13	50	10	650	30
1160 M4		+	+	-	-	-	Translucent	1.14	58	10	680	40
1170 M4		+	+	-	-	-	Translucent	1.18	70	10	630	45
1180 M4		+	•	-	-	-	Translucent	1.19	79	9	580	32

Typical physical properties are average data and are not to be used as or to develop product specifications.

a Based on listing of ingredients in the BfR recommendation XV "Silicones".

a1 Producer of the final article needs to test and confirm that the final product meets the analytical and extractive requirements of BfR XV.

b Based on compositional compliance with the requirements of 21 CFR 177.2600 – Rubber articles intended for repeated use and have been found, through extractive testing of a representative sample, to meet the extractives limitations in 21 CFR 177.2600(e) and/or (f).

b1 It is the responsibility of the user to determine that the final product complies with the extractive limitations and other requirements of 21 CFR 177.2600 under their specific manufacturing procedures. c Based on testing conducted on a representative sample of the product for tubes, fittings, seals and storage systems (cold and warm water), as per the requirements of KTW, German Water regulation.

d Based on testing conducted on a representative sample of the product as per the requirements of BS 6920 (cold and hot water). e One part ready-to-use compound.

Two part Addisil, Mixing ratio of A:B 1:1.

One part ready-to-use compound, all Addisil Industrial Molding grades can be offered as 2 part system.

Two part Addisil, mixing ratio of base:catalyst 100:0.5; Laboratory Vulcanization Conditions: exposure to a Hg-(Fe-doped) middle pressure lamp for 2 min at 80 mW/cm² intensity, without further heat curing.

- = Meets the requirements for passing the test standard, - = Not tested, + = product is compositionally compliant.

Denotes catalyst system

Additional information may be contained on the technical datasheet.

For custom opportunities, please contact your local Momentive sales representative.

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HCR Fluorosilicones

Fluorosilicones may be considered for applications in presence of fuel, oils, blow by gas and various solvents.

Product Name	Appearance	Density g/cm ³	Hardness/ Durometer Shore A	Tensile Strength MPa	Elongation %	Tear Strength, Die B N/mm	Compression set, 22h @175 °C (post-cured)
General Purpose							
FSE7520	White	1.36	26	7.7	550	16	15
FSE7540	White	1.39	44	8.3	380	13	8
FSE7560	White	1.42	62	9.2	290	18	10
FSE7570-D1	Off - White	1.47	66	8.2	350	35	15
High Tear Resistance							
FSE7340	Pale Yellow	1.43	43	11.2	500	42	8
FSE7360	Pale Yellow	1.47	62	10.5	400	38	12
Low Compression Set							
FQE205U	Pale Yellow	1.42	52	9.2	290	17	4
FQE206U	Light Yellow	1.45	61	11.2	280	22	5
FQE207U	Light Yellow	1.53	71	8.5	190	17	3
Low Compression Set - High Strength							
FQE307U	Light Yellow	1.45	70	10.5	260	14	4

Typical physical properties are average data and are not to be used as or to develop product specifications.

All Fluorosilicones are available as customized ready-to-use compounds.
 Denotes catalyst system
 Additional information may be contained on the technical datasheet.
 For custom opportunities, please contact your local Momentive sales representative.



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