

Technical Library

LSR

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General Information about LSR

LSR is the proprietary name of a range of two-component liquid silicone rubbers used to produce elastic parts by injection moulding. Ready-for-use mixtures (components A and B) are fed directly to the injection-moulding machine from the original containers by means of multi-component mixing and metering units. The mixture, consisting of the two components in the ratio 1:1, is injected into the heated mould. The [following figure](#) shows the flow chart.

While Grade Dependant, the addition-crosslinking silicone rubber vulcanises within a few seconds at mould temperatures of 140-230°C. Short vulcanisation times and ease of demoulding permit automated production of large numbers of articles per unit time. Vulcanisates consisting of LSR are distinguished by the following properties:

- High thermal stability
- High stability and flexibility at low temperatures
- Good rubber-like properties
- High stability against ozone and ultraviolet light
- Outstanding resistance to aging
- Excellent dielectric behaviour over a wide range of temperatures
- Physiological compatibility of most grades.

Silicone rubber is not readily combustible, does not melt or drip and smoke toxicity is very low.

LSR Product Range

LSR	Property/Application	Shore A Hardness									
		10	20	30	40	45	50	60	70	80	
LSR 20X0	General Purpose (standard)	X	X	X	X		X	X	X	X	
LIM 2XX0	General Purpose						X	X	X		
LSR 21X0	Oil Resistant						X	X	X		
LSR 22XX	Flame Retardant						X				
LSR 2345/0Y'	Electrical Conductive			X	X		X				
LSR 25X0	Coating / Low viscosity			X	X			X			
LSR 26X0	General Purpose (fast)	X	X	X	X		X	X	X	X	
LIM 60XX	High Performance FDA & Bio testing	X		X	X	X	X	X	X		
LSR 26X1	General Purpose (fast/low comp. set)			X	X		X	X	X		
LSR 27X0	Self-Bonding			X	X		X				
LIM 8040	Self-Bonding				X						
LIM 9070	Self-Bonding (low comp. set)								X		
LSR 28XY	High Dynamic Strength				X		X	X			
LIM 6745	High Flow/Keypad					X					

LIM 3745	High Flow/Keypad					X				
LIM 6746	High Flow/Bio testing					X				
LIM 6744.06	High Flow/Red					X				
LSR 29X0	High Tear Strength				X					
LSR 3Z85/XX	Oil Bleeding (standard)			X	X		X			
LSR 3Z86/XX	Oil Bleeding (npc)		X	X	X		X	X	X	
LSR 40X0	Healthcare		X	X	X		X	X	X	
LSR 5Y50	High Transparency						X			
LSR 8070	CIPG									X
FSL 7208	Fluorosilicones						X			
FSL 7210	Fluorosilicones						X			
Electro 2X0	High Voltage Insulation (standard)			X	X					
Electro 242-V	High Voltage Insulation, high tracking resistance			X	X					
Electro 245	High Voltage Insulation, ATH-filled							X		
	X : Shore A									
	Y : Divers									
	Y' : Different conductivity									
	Z : Oil content									
	V: Viscosity									

Application Fields of LSR

Applications of LSR include parts for:

- Automotive
- Electronics
- Electro & Appliances
- Medical
- Textile
- Miscellaneous

Automotive

- Distributor caps
- Cable bushings
- Loudspeaker covers
- Housing seals
- Bellows
- Plug seals
- Spark Plug Boots
- Vent Flaps
- Grommets for Weather Packs
- Central Door Locker Membranes
- O-Rings
- Gaskets

Medical

- Seals for medical appliances
- Syringe plungers
- Breast nipple protectors
- Base plates (dental)
- Inflating bellows
- Catheters
- Instrument mats
- Sterilisation mats
- O-Rings for dialysers
- Earplugs
- Pipette nipples
- Catheter holders

- Bushings
- Boots
- Combined Elements with Thermoplastics

Electric/Electronics

- Sockets for antennas
- Terminals
- Plug connections
- Conductors (overvoltage)
- Insulators (high voltage)
- Housing seals
- Reinforced insulating hoses
- Vibration dampers (Collectors)
- Switch membranes Covers (damp room switches)
- Watch seals
- Insulating parts for hot adhesive guns
- Key Pads for Computers and Telephones
- Anode Caps
- Insulators and Surge Arresters
- Diaphragms
- Grommets
- Cable Seals
- Cover for Switches

Electro & Appliances

- Small seals
- Cable bushings
- Reinforced insulating hoses
- Lamp seals
- Appliance feet
- Membranes
- O-Rings
- Diffuser for Hair Dryers
- Gaskets for Faucets
- Gaskets for Pressure Cookers
- Detergent Seals for Dish Washer
- Parts for Coffee and Espresso Machines
- Coated Glass Fibre Hoses for Electric Stoves
- Water Diffuser for Shower Bath

- Cannula protection sleeves
- Nose clamps
- Valves and bellows for respirators
- Baby Bottle Nipples
- Baby Pacifiers
- Stoppers
- Respiratory Masks
- Foley Catheters
- Electrodes
- Parts for Dental Applications
- Parts for Medical Equipments

Textile

- Textile Coating for Conveyor Belts,
- Tents, Compensators and Technical Applications
- Sleeves for Electrical & Heat Insulation
- Heat Reflecting Fabrics for Steel Worker's Coat
- Airbag Coating
- Printing Inks

Miscellaneous

- Swimming goggles
- Snorkels and mouthpieces for snorkels
- Elements for sport shoes
- Diving Masks
- Swimming Caps
- Respiratory Devices
- Photocopier Rolls
- Butcher's Gloves

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