

# Self-Lubricating LSR

for Health Care Applications



## Productivity & Performance for Molded Parts

Momentive's family of liquid silicone rubber materials (LSR) enable health care device designers and equipment manufacturers to introduce improved material features for critical applications such as needle-free access valves, o-rings, stoppers, seals and assembled parts. The Silopren® LSR 46X5 SL product family can provide enhanced lubricity for specialized applications requiring a high-slip surface not achievable via traditional silicone molded parts.

### Key Features and Typical Benefits

- Biocompatibility: USP CLASS VI and ISO 10993 (parts 5, 6, 10, 11) compliant
- Longer lubricating life: longevity of molded parts & reduced self-healing of valve slits
- Delayed lubricant surface bloom: enables efficient part molding without mold fouling
- Higher slip surface - low coefficient of friction: enables automated assembly of devices
- Enhanced ability for molded parts to glide into mountings

## Improving the mounting efficiency

Silopren LSR 46X5 SL series is a two-component, self-lubricating liquid silicone rubber for injection molding processes that provides a lubricious surface on the molded part after vulcanization.

Silopren LSR 46X5 SL series can eliminate the need for secondary lubrication processes to reduce the coefficient of friction, which can improve the mounting efficiency of molded parts during the assembly of devices. Delayed lubricant surface bloom after vulcanization helps prevent mold fouling while also improving the longevity of the molded parts and reducing the occurrence of self-healing of slit valves.

## Typical Physical Properties

### Typical Physical Properties of the Vulcanized Rubber:

Test results on molded slabs, (mix ratio A:B = 1:1)  
Vulcanization conditions: 10 min. 175 °C

	Shore A	Tensile strength - psi & N/mm <sup>2</sup>	Elongation at break(%)	Tear, die B (ppi)	Specific gravity	Comp. set 22hr @ 23°C (%)
Silopren* LSR 4625 SL	25	psi = 955, N/mm <sup>2</sup> = 6.6	758	ppi = 139 N/mm = 24	1.09	3.9
Silopren LSR4635 SL	35	psi = 1060, N/mm <sup>2</sup> = 7.3	627	ppi = 225, N/mm = 40	1.1	2.3
Silopren LSR 4645 SL	45	psi = 1163, N/mm <sup>2</sup> = 8	517	ppi = 285, N/mm = 50	1.12	2.3
Silopren LSR 4655 SL	55	psi = 1160, N/mm <sup>2</sup> = 8	450	ppi = 260, N/mm = 45	1.13	1.6
Silopren LSR 4665 SL	65	psi = 1316, N/mm <sup>2</sup> = 9.1	412	ppi = 171, N/mm = 30	1.13	2.5

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



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