



# Silopren\* LSR 3186 50

## Silopren© LSR 3186 50

### Description

**Silopren LSR 3186/50 TP 3651** is a two-component liquid silicone rubber for injection moulding processes. This rubber is especially developed for the manufacture of elastomeric articles requiring self-lubricating properties. This effect is achieved by a fluid which exudes out of the vulcanizes over an extended period of time. This lubricating effect starts after vulcanization between a few hours and one day. **Silopren LSR 3186/50 TP 3651** shows in comparison to **Silopren 3X85/YY** as non-post cure grade (NPC grade) a lower compression set after vulcanisation.

### Key Features and Benefits

Vulcanisates consisting of **Silopren LSR 3186/50 TP 3651** are distinguished by the following properties:

- non post-cure,
- self-lubricating effect after vulcanization
- high thermal stability
- high stability and flexibility at low temperatures
- good rubber-like properties
- outstanding resistance to ageing
- satisfactory resistance to mineral oils
- Not readily combustible does not melt or drip.

### Typical Physical Properties

		A-part	B-part
Appearance		translucent	translucent
Fluid content	%	1	1
Viscosity in Pa.s $\gamma = 10 \text{ s}^{-1}$ at 20 ° C	DIN 53018	400	400
The potlife of the mixture of the two components at 20° C is three days. Increased temperatures reduce the potlife.			
<b>Typical properties of the vulcanization:</b> Mixing ratio of components A: B = 1: 1. Vulcanization: 10 min. 175 °C			
Density	DIN 53 479 A	g/cm <sup>3</sup>	1.12
Shore A hardness	DIN 53 505		51
Tensile strength	DIN 53 504 S2	N/mm <sup>2</sup>	9.0
Elongation at break	DIN 53 504 S2	%	600
Tear strength	ASTM D 624 die B	N/mm	35
Compression set	DIN 53 517 (22 h at 175 ° C)	%	25

### Potential Applications

Because of the outstanding properties **Silopren LSR 3186/50 TP 3651** is particularly suitable for the following elastomeric articles: cable seals, O-rings, gaskets, grommets s.o.

### Processing Recommendations

Ready-to-use mixtures (of the components A and B) are fed directly to the injection moulding machine from the original containers by means of a metering and mixing unit. The mixture, consisting of the two components in the ratio 1:1, is injected into the heated mould. At mould temperatures of 170 - 230° C,

the addition-crosslinking silicone rubber vulcanizes free of dissociation products within a few seconds. High curing speed and easy demoulding permit fully automated production of large numbers of articles in short cycle times. The self-lubricating effect is, however, affected by several factors which are specific for each article. The diffusion process depends on:

- ratio of the volume of the article to its surface area,
- degree of crosslinking of the article,
- type and concentration of the pigment in the article added as a LSR Colour Paste.

**Silopren LSR 3186/50 TP 3651** should only be used for the production of technical articles.

## Containers

**Silopren LSR 3186/50 TP 3651** is available in 20 kg pails and 200 kg drums.

## Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

## Product Safety, Handling and Storage

The individual components of **Silopren LSR 3186/50 TP 3651** have a warranty period of 6 months from the date of shipment, if stored in the original unopened containers at room temperature (max. 27 ° C). Containers, which have been opened, must be kept tightly closed afterwards

Customers should review the latest Material Safety Data Sheet (MSDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, and any special storage conditions required for safety. MSDS are available at [www.momentive.com](http://www.momentive.com) or, upon request, from any Momentive Performance Materials (MPM) representative. **For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center.** Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

## Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

## Contact Information

For product prices, availability, or order placement, contact our customer service by visiting [momentive.com/ContactSilicones](http://momentive.com/ContactSilicones).

For literature and technical assistance, visit our website at: [www.momentive.com](http://www.momentive.com)

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