

SiSiB® LR4005 Liquid Silicone Rubber

INTRODUCTION

SiSiB® LR4005 is a two-component, platinum-cured liquid silicone rubber designed for liquid injection molding (LIM). It offers excellent transparency, high tear strength, low compression set, and good resilience. It provides stable performance across a wide temperature range from -50°C to 200°C. It is particularly suitable for precision molded sealing components requiring long-term elasticity and dimensional stability.

KEY FEATURES

- Designed for liquid injection molding
- Low compression set
- Excellent transparency
- High tear strength
- Good rebound resilience
- Wide service temperature range (-50°C to 200°C)

PHYSICAL PROPERTIES

Item	Value	Method
Appearance A/B	Transparent	Visual
Viscosity (Pa·s)	800 - 1,500	GB/T2794-2022

Cured Properties		
(Cured at 140°C × 10 min, sample thickness approx. 2 mm)		
Specific Gravity	1.10-1.15	GB/T533-2008
Hardness (° A)	47-53	GB/T531.1-2008
Tensile Strength (MPa)	Min.8.5	GB/T528-2009
Elongation at break (%)	Min.550	GB/T528-2009
Tear Strength (KN/m)	Min.30	GB/T528-2009
Rebound (%)	Min.50	GB/T1681-2009
Compression set (%)*	Max.20	GB/T7759-1996

* Compression set test condition: 175°C × 22 h

These values are typical data and should not be used as specification.

APPLICATIONS

SiSiB® LR4005 is suitable for precision molded silicone components requiring transparency, elasticity, and long-term sealing performance. It is particularly recommended for O-rings, sealing rings, and general sealing components used in industrial and consumer applications.

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PROCESSING GUIDE

SiSiB® LR4005 is supplied as a two-component system (Part A and Part B) packaged separately. The components must be metered and mixed at a 1:1 ratio using dedicated injection molding equipment. The materials are pumped into the mold cavity and thoroughly mixed through a static mixer before injection.

After mixing, the silicone is injected into a heated mold where curing occurs under controlled temperature conditions.

At 23°C, the mixed material provides a safe processing time of up to 3 days under sealed conditions. If the production line is stopped for an extended period, the mixing system and pipelines should be cleaned to prevent blockage.

PACKING

SiSiB® LR4005 is supplied as a two-component system (Part A and Part B). Each component is available in 20 kg pails or 200 kg drums.

STORAGE

In the unopened original container SiSiB® LR4005 has a shelf life of 12 months in a dry and cool place.

HANDLING

This document does not contain the product safety information required for safe use. Before handling, please refer to the product and safety data sheets, as well as container labels, for information on safe usage, physical hazards, and health risks. Safety Data Sheet is available on the website, from the distributor, or by contacting SiSiB customer service.

NOTE

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

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Sustainable Innovation for a Better Future



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