

PRODUCT DATA SHEET

Sikasil® SL 189

(formerly MSeal SL 189)

Ultra-low modulus silicone sealant for concrete and asphalt substrates

DESCRIPTION

Sikasil® SL 189 is a high performance, one-part, moisture curing silicone construction sealant. The Product offers ultra-low modulus, fuel and UV resistant, elastomeric seal. The ultra-low modulus minimises the strain on the asphaltic joint face, which is necessary due to the low tensile strength of asphaltic paving materials.

USES

Sikasil® SL 189 is used for sealing:

- Movement or expansion joints
- Saw-cut joints for crack control
- Shaped and spalled joints
- Can lights and electrical cables in airport runway lighting
- Connection joints between concrete and asphalt
- Saw-cut openings used to encapsulate and seal sensitised wiring loops for control of traffic signals, traffic counters, parking lot gates, ticket dispensers, and other similar equipment.

Please note:

- The Product is not suitable for permanent water immersion.
- Do not use in a totally confined space, because the sealant requires atmospheric moisture to cure.

FEATURES

- Ready for use
- Low stress on substrate due to the low modulus of the sealant
- No primer required
- Very good durability
- Adapts to joint width and alignment irregularities
- Wide service temperature range

PRODUCT INFORMATION

| | | |
|---------------------|--|---|
| Composition | Silicone | |
| Packaging | 600 mL sausage and 857 mL cartridge. Bulk pack on request. | |
| Colour | Dark grey | |
| Shelf life | 12 months from date of production | |
| Storage conditions | The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +25 °C. Always refer to the packaging. Refer to the current Safety Data Sheet for information on safe handling and storage. | |
| Density | 1.3 kg/L | (ISO 1183-1) |
| Product declaration | ASTM D5893/D5893M-16 ASTM C920-18 | Type SL Type S, Grade P, Class 100/50, Use T |

TECHNICAL INFORMATION

| | | | | |
|------------------------|--|---------------------------------------|------------------------|-----------------------|
| Shore hardness | Shore 00 | Cured 25 days at +23 °C and 50 % R.H. | ~40 | (EN ISO 868) |
| Secant tensile modulus | Cured at (50 ± 5) % R.H. Measured at 150% elongation at +23 °C | | 0.05 N/mm ² | (ASTM D412; ISO 8339) |
| Shrinkage | Loss of volume | < 2 % | | (EN ISO 10563) |
| Elastic recovery | ~75 % | | | (EN ISO 7389) |
| Movement capability | 100/50 | | | (ASTM C719) |
| Service temperature | Maximum | +145 °C | | |
| | Minimum | -30 °C | | |
| Elongation at break | 750 % | | | (ISO 37) |

APPLICATION INFORMATION

| Consumption | JOINT LENGTH PER 600 ML FOIL PACK | | | | | |
|-------------|-----------------------------------|-------------------|-------------------|-------------------|--------------------|--------------------|
| | Joint depth | Joint width: 4 mm | Joint width: 6 mm | Joint width: 8 mm | Joint width: 12 mm | Joint width: 20 mm |
| 6 mm | 25 m | 16.6 m | 12.5 m | 8.3 m | 5 m | |
| 8 mm | - | 12.5 m | 9.3 m | 6.5 m | 3.7 m | |
| 10 mm | - | - | 7.5 m | 5 m | 3 m | |
| 12 mm | - | - | - | 4.1 m | 2.5 m | |

| Consumption | JOINT LENGTH PER 857 ML CARTRIDGE | | | | | |
|-------------|-----------------------------------|-------------------|-------------------|-------------------|--------------------|--------------------|
| | Joint depth | Joint width: 4 mm | Joint width: 6 mm | Joint width: 8 mm | Joint width: 12 mm | Joint width: 20 mm |
| 6 mm | 37.5 m | 23.8 m | 17.8 m | 11.9 m | 7.1 m | |
| 8 mm | - | 17.8 m | 13.3 m | 8.9 m | 5.3 m | |
| 10 mm | - | - | 10.7 m | 7.1 m | 4.2 m | |
| 12 mm | - | - | - | 5.9 m | 3.5 m | |

Sag flow Self-leveling, can be used on slopes ≤ 3%

| | | |
|--------------------------------|--|--------------|
| Material temperature | Maximum | +40 °C |
| | Minimum | +5 °C |
| Ambient air temperature | Maximum | +40 °C |
| | Minimum | +5 °C |
| Dew point | The substrate temperature must be at least +3 °C above dew point to reduce the risk of condensation decreasing adhesion. | |
| Substrate temperature | Maximum | +40 °C |
| | Minimum | +5 °C |
| Backing material | Use closed cell, polyethylene foam backing rod. | |
| Curing time | < 21 days | (CQP049-2) |
| Skinning time | At +23 °C and 50 % r.h. | 60 min |
| Tack free time | ~5 hours | (EN 14187-2) |

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The substrate must be sound, clean, dry and free of contaminants such as dirt, oil, grease, cement laitance, sealant residues and poorly bonded coatings which could affect adhesion of the primer and sealant. The substrate must be of sufficient strength to withstand the stress induced by the sealant during movement.

1. Use techniques such as wire brushing, grinding, grit blasting or other suitable mechanical methods to remove all weak substrate material.
2. Repair all damaged joint edges with suitable Sika repair products.
3. Remove dust, loose and friable material from all surfaces before applying the sealant.

Never apply the Product to damp or wet concrete, to asphalt, or during rain.

APPLICATION

IMPORTANT

Strictly follow installation procedures

Strictly follow installation procedures as defined in Method Statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

Ambient temperature

Note: In colder temperatures, reactions happen slower, leading to longer open and curing times. In warmer temperatures, reactions occur faster, resulting in shorter open and curing times.

To guarantee complete curing, maintain material and structure temperatures above the minimum limit at any location and any point during the curing process.

1. Install the cartridge into a manual or air-operated gun.
2. Fill from the bottom up to within 3 mm of the roadway.
3. Where required, strike off just below surface level and remove any excess material.

CLEANING OF EQUIPMENT

Clean all tools and application equipment immediately after use with Sika® Remover-208 or Sika® Cleaning Wipes-100. Once cured, hardened material can only be removed mechanically.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

Sika Gulf B.S.C. (c)

Tel: +973 177 38188
Email: info@bh.sika.com
Sika Kuwait Cons. Mat. & Paints Co WLL
Tel: +965 22 282 296
Email: sika.kuwait@kw.sika.com
Web: gcc.sika.com

Sika UAE LLC

Sika MB Construction Chemicals LLC
Sika International Chemicals LLC
Tel: +971 4 439 8200
Email: info@ae.sika.com
Web: gcc.sika.com

Sika Saudi Arabia Limited

Sika Construction Chemicals for
Manufacturing LLC
Riyadh / Jeddah / Dammam / Rabigh
Tel: +966 12 692 7079
Email: info@sa.sika.com
Web: gcc.sika.com

Sika LLC - Oman

Master Builders Solutions LLC
(part of Sika)
Tel: +968 22 826 500
Email: info@om.sika.com
Web: gcc.sika.com



ISO 9001, 14001, 45001 – SGS
- Sika UAE LLC
- Sika International Chemicals LLC
- Sika Gulf B.S.C. (c)
ISO 9001, 14001 – SGS
- Sika Saudi Arabia Limited
ISO 9001, 14001 – TÜV
- Sika MB Construction Chemicals LLC
- Sika Construction Chemicals for Manufacturing LLC
- Master Builders Solutions LLC

All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.



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