SPECIAL

OTTOSEAL®
S 34

Technical Datasheet

1-component silicone sealant based on oxime, neutral cross-linking, MEKO-free

For indoor and outdoor application

Characteristic:

- **Non-corrosive**
  No (oxidation) corrosion on unprotected metal surfaces
- **Extraordinary long-term temperature resistance up to + 265 °C**
  Suitable for special thermal requirements
- **Very good resistance to influence of chemicals**
  Suitable for use in areas subject to heavy chemical exposure
- **Very high mechanical strength, resistance to notches, tension and tearing**
  Suitable for traffic areas (e.g. forklift traffic in compliance with IVD leaflet no. 1) and resistant to mechanical cleaning with high-pressure cleaners
- **Excellent weathering, ageing and UV-resistance**
  For long-lasting indoor and outdoor applications

Fields of application:

- Sealing of chemically heavily loaded floor and connecting joints, e. g. in dairies, abattoirs, beverage and food production plants, canteen kitchens, etc.
- Sealing of floor joints subject to high mechanical stress, e. g. in storage and production halls, yard areas, parking decks, underground car parks, workshops, car washes etc.

Standards and tests:

- Tested according to EN 15651 – Part 4: PW EXT-INT 25 LM
- Declaration of no objection – tested for use in food-related area (ISEGA Forschungs- und Untersuchungs-Gesellschaft mbH, Aschaffenburg, Germany)
- Suitable for applications according to IVD instruction sheet no. 1+19-1+21+31+35 (IVD = German industry association sealants)
- Classification according to building certification systems, see the sustainability data sheet
- French VOC-emission class A+
- Tested fire behaviour in accordance with EN 13501: class E

Important information:

Before applying this product the user has to ensure that the materials in the area of contact (solid, liquid and gaseous) are compatible with it and also amongst each other and do not damage or alter (e. g. discolour) each other. As for the materials that will be used at a later stage in the surrounding area of the product the user has to clarify beforehand that the substances of content or evaporations do not lead to an impairment or alteration (e. g. discolouration) of the product. In case of doubt the user should consult the respective manufacturer of the material.
Avoid contact with materials which contain bitumen and which release solvents, e. g. butyl, EPDM, neoprene, insulating- and bituminous paint.
During the curing process of the material reaction products of the crosslinker are released.
Ensure good ventilation during application and curing.
The required vulcanization time prolongs with increasing thickness of the silicone layer. One-component silicones are not suitable for full-area bonding, unless there are specific structural conditions that require such full-area application. If one-component silicones are to be used for thickness layers of more than 15 mm please contact our technical department beforehand.

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If horizontal joints are subject to vehicle operation, e.g. mechanical stress caused by forklift trucks, protection plates or profiles (T-shaped) are recommended to cover the elastic joints. The use of protection plates is highly recommended for floor joints measuring more than 15 mm width.
Clamping sections can be used to protect joint flanks of concrete and flooring screed, or the joint flanks can be chamfered.
Important information about sealing of floor joints as well as construction plans is given in the IVD instruction sheet no. 1. It can be downloaded from the Industrieverband Dichtstoffe e.V. on the website www.abdichten.de.
On using a steam-jet apparatus the distance between the joint and the steam nozzle is to be at least 50 cm.
The sealant has to be cured for between 24 and 48 hours, depending on the depth of the joint, before the sealant is exposed to mechanical stress. During this time make sure you protect the sealant accordingly.
Please contact our technical department if joints are exposed to heavy chemical or physical load.

Technical properties:

Skin-forming time at 23 °C/50 % RH [minutes]	~ 10
Curing in 24 hours at 23 °C/50 % RH [mm]	~ 2 - 3
Processing temperature from/to [°C]	+ 5 / + 35
Viscosity at 23 °C	pasty, stable
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,1
Shore-A-hardness according to ISO 868	~ 30
Permissible movement capability [%]	25
Stress expansion modulus at 100 % according to ISO 37, type 3 [N/mm²]	~ 0,4
Tensile expansion according to ISO 37, type 3 [%]	~ 600
Tensile strength according to ISO 37, type 3 [N/mm²]	~ 2,0
Temperature resistance from/to [°C]	- 40 / + 265
Shelf life at 23 °C/50 % RH for cartridge/foil bag [months]	12 (1)

1) from date of manufacture

These data are not suitable for the issue of specifications. Please contact OTTO-CHEMIE before issuing specifications.

Chemical resistance:

Acetone	temporarily resistant (1)
Ammonia (25%)	resistant
Petrol	not resistant
Drilling fluid Mobilmet 151 pure	temporarily resistant (1)
Drilling fluid Mobilmet 151 : Water 1:3	resistant
Drilling fluid Mobilmet 151 : Water 1:5	resistant
Brake fluid DOT 4	temporarily resistant (1)
Diesel fuel	not resistant
Dioctylphtalat DOP	resistant
Acetic acid (10%)	resistant
Acetic acid (25%)	resistant
Ethylalcohol	resistant
Ethylene glycole	resistant
Formalin (10%)	resistant
Gear oil EP SAE 80W	temporarily resistant (1)
Cold degreasing agent ARAL	not resistant
Cooler Antifreeze ARAL pure	resistant
Cooler Antifreeze ARAL : Water 1:2 (-20°C)	resistant
Cooler Antifreeze ARAL : Water 1:1,5 (-27°C)	resistant
Cooler Antifreeze ARAL : Water 1:1 (-40°C)	resistant
Sea water	resistant
Methanol	resistant
Lactic acid (10 %)	resistant
Motor oil ARAL SAE 15W-40	temporarily resistant (1)
Sodium chloride (fat solution)	resistant
Caustic soda solution (10 %)	resistant
Caustic soda solution (20 %)	resistant
Caustic soda solution (50 %)	resistant
Nitrodilution	not resistant

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Hydrochloric acid (10%)	temporarily resistant (1)
Citric acid (50 %)	resistant

1) up to 72 hours

Tested at +23°C

Pretreatment:

The adherent surfaces have to be clean, free from fat, dry and sustainable.
All adherent surfaces must be clean and any contaminant such as release agents, preserving agents, grease, oil, dust, water, old adhesives or sealants and other substances which could affect adhesion, should be removed. Cleaning of non-porous substrates: Apply OTTO Cleaner T (airing time approx. 1 minute) using a clean, lint-free cotton cloth. Cleaning porous substrates: Clean surfaces with steel-wire brush e. g. or a grinding disk to remove loose particles.

Primer Table:

The demands on elastic sealings and bondings depend on the respective exterior influences. Extreme fluctuations in temperature, tensile or shear forces, repeated contact with water etc. demand high requirements of a bonding. In such cases it is advisable to apply primer according to the recommendations of our technical department (e. g. +/OTTO Primer 1216) in order to achieve a resilient bonding.

Aluminium	+
Aluminium anodized	+ / 1101
Aluminium powder-coated	T
Aluminium powder-coated (contains teflon)	T
Concrete	1105 / 1225
Epoxid resin coating	+
Epoxid resin mortar	+ / 1216
Stainless steel	+ / 1216
Fibre cement	1105
Glass	+
Ceramic, glazed	+
Ceramics, unglazed	+ / 1216
Copper	1101 (1)
Brass	+ / 1101 (1)
Natural stone / marble	OTTOSEAL® S 70
Polyester	+
PVC unplasticized	1227
Zinc, galvanised iron	1101 / 1216

1) The reaction of neutral silicone with non-ferrous metalls, such as copper, brass, etc. is possible. Upon curing un-blocked air admission is necessary.

+ = good adherence without primer
- = not suitable
T = Test/pilot test advised

Application information:

Floor joints / connection joints according to IVD instruction sheet no. 1 on inside and outside areas made of concrete and screed which are exposed to static loads or vehicle traffic in warehouses, production halls, yard areas, underground and multi-storey car parks. Because of the very high notch resistance and the very high tear strength, the sealant is very well suited for areas which are regularly cleaned by machines. Nevertheless, you have to be careful not to damage the joints with hard cleaning brushes. In case of using high-pressure cleaners you have to keep a minimum distance of 50 cm between the spray nozzle and the sealant.
The additional use of cleaning chemicals may have an influence on the stability of the sealant. - Floor joints / connecting joints in surroundings contaminated with chemicals e. g. barrel storages, filling station, yard areas, trans-shipment areas, laboratories, workshops and washing bays – ceramic floors e. g. food industry, dairies, canteen kitchens
Please consider, that elastic jointings in these areas are maintenance joints according to DIN 52 460, which must be checked at regular intervals (e. g. annually) and replaced if necessary to prevent consequential damages.

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Due to the many possible influences during and after application, the customer always has to carry out trials first.
Please observe the recommended shelf life which is printed on the packaging.
We recommend to store our products in unopened original packagings dry (< 60 % RH) at temperatures of +15 °C up to +25 °C. If the products are stored and / or transported at higher temperatures / air humidity for longer periods (some weeks), a diminuition of durability or a change of material characteristics may arise.

Packaging:

	310 ml cartridge	400 ml aluminium foil bag
anthracite	S34-04-C67	on request
dust grey	S34-04-C89	on request
sanitary grey	S34-04-C18	S34-07-C18
Packaging unit	**20**	**20**
Pieces per pallet	**1200**	**900**

Safety precautions:

Please observe the material safety data sheet.
After curing the product is completely odourless.

Disposal:

Information about disposal: Please refer to the material safety data sheet.

Warranty information:

All information in this publication is based on our current technical knowledge and experience. However, since conditions and methods of use and application of our products are beyond our control, we suggest that you test the product before final use. Information given in this technical data sheet and explanations of OTTO-CHEMIE in connection with this technical data sheet (e.g. service description, reference to DIN regulations etc.) is not to be seen as a warranty. Warranties require a separate written declaration of OTTO-CHEMIE to prove their validity. The characteristics stated in this data sheet define the characteristics of the article broadly and concludingly. Suggestions of use are not to be taken as confirmation of the appropriateness for the recommended intended use. We reserve the right to alter the product, adjusting it according to technical progress and new developments. We are at your disposal both for inquiries as well as specific application problems. If a governmental approval or clearance is necessary for the application of our products, the user is responsible for the obtainment of such. Our recommendations do not excuse the user from the obligation to take into consideration the possibility of infringement of third parties' rights and - if necessary - resolving it. For the rest our general terms and conditions apply, in particular regarding a possible liability for defects. You can find our general terms and conditions on our homepage: http://www.otto-chemie.de/en/terms-and-conditions

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