

OTTOSEAL® S 34 SPECIAL

The floor silicone



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

For indoor and outdoor application

S 34



Characteristics

- ▶ Very good resistance to influence of chemicals - Suitable for use in areas subject to heavy chemical exposure
- ▶ Very high mechanical strength, notch and tear resistance - Resistant to high mechanical stresses (e.g. to mechanical cleaning with high-pressure cleaners)
- ▶ High temperature resistance up to + 265 °C - Suitable for special thermal requirements
- ▶ Excellent weathering, ageing and UV-resistance
- ▶ Does not cause corrosion on unprotected metal surfaces

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 mechanically highly loaded movement and connection joints, which are exposed to stationary loads or rolling traffic, e.g. in warehouses and production halls, workshops, yards, car washes, parking decks, underground car parks etc.

Standards and tests

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

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



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SEALING & BONDING

Tensile strength according to ISO 37, type 3 [N/mm ²]	~ 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 production

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

Pretreatment

The adherent surfaces have to be clean, free from fat, dry and sustainable.

The adhesive surfaces must be cleaned and any contamination such as release agents, preservatives, grease, oil, dust, water, old adhesives/sealants and other substances impairing adhesion must be removed. Cleaning of non-porous substrates: Clean with OTTO Cleaner T (no flash-off time required) and a clean, lint-free cloth. Cleaning porous substrates: Clean surfaces mechanically, e.g. with a steel brush or a grinding disc, 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	1217
Zinc, galvanised iron	1101 / 1216

1) The reaction of neutral silicone with non-ferrous metals, 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

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.

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.

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

1) up to 72 hours

Tested at +23°C

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.




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 diminution of durability or a change of material characteristics may arise.

Packaging

Glossy colors

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

Due to typographical reasons the colours shown below may differ from the original colours of the products.

Safety precautions

Please observe the material safety data sheet.

After curing, the product is odourless.

Disposal

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

Warranty information

The above information and our technical application advice, whether verbal, in writing or by means of tests, are provided to the best of our knowledge, but are non-binding, including with regard to any third-party property rights. The information in this publication does not exempt the processor from carrying out their own tests on our products with regard to their suitability for the intended processes and purposes. The application, use and processing of our products and the products manufactured on the basis of our technical application advice are beyond our control and are therefore the sole responsibility of the processor. If the application for which our products are used is subject to an official authorisation requirement, the user is responsible for obtaining these authorisations. We reserve the right to adapt the product to technical progress and new developments. For the rest, we refer to our General Terms and Conditions, in particular with regard to any liability for defects. You can find our GTC at www.otto-chemie.de.