

OTTOSEAL® S 27 SPECIAL

The silicone for food and drinking water



1-component silicone sealant based on acetate

For indoor and outdoor application

S 27



Characteristics

- ▶ Tested for applications in the food and drinking water sector
- ▶ Good chemical resistance (e. g. to cleaning agents and disinfectants) - No damage by aggressive cleaning and disinfection
- ▶ High resistance to notches and tearing - Resistant to high mechanical stresses
- ▶ Excellent weathering, ageing and UV-resistance

Fields of application

- ▶ Sealing in the food sector, e. g. in dairies, abattoirs, beverage and food production plants, canteen kitchens etc.
- ▶ Sealing in the drinking water area between ceramic coatings

Standards and tests

- ▶ Tested in accordance with the specifications of the silicone transition recommendation for use in contact with drinking water (as of October 15, 2024) in accordance with DIN EN 12873, DIN EN 1420, and DIN EN 16421*.
*Applies only to colors C00 transparent and C01 white.
- ▶ Positively tested for compatibility when in contact with food (by the Chemical Laboratory Dr. Stegemann, Georgsmarienhütte, Germany)
- ▶ Declaration of no objection – tested for short-term contact with food (ISEGA Forschungs- und Untersuchungs-Gesellschaft mbH, Aschaffenburg, Germany)
- ▶ Meets the requirements for fire behavior according to EN 13501: Class E
- ▶ French VOC-emission class A+
- ▶ Suitable for applications according to IVD instruction sheet no. 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]	~ 1,0
Shore-A-hardness according to ISO 868	~ 25
Permissible movement capability [%]	25



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OTTO
 CHEMIE
 SEALING & BONDING

Stress expansion modulus at 100 % according to ISO 37, type 3 [N/mm²] ~ 0,50

Tensile expansion according to ISO 37, type 3 [%]	~ 575
Tensile strength according to ISO 37, type 3 [N/mm ²]	~ 1,4
Temperature resistance from/to [°C]	- 40 / + 180
Shelf life at 23 °C/50 % RH for cartridge/foil bag [months]	18 ¹
Shelf life at 23 °C/50 % RH for pail/drum [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	1216
Aluminium anodized	1216
Concrete	1105
Concrete (permanent water stress)	- ¹
Stainless steel	1216
Stainless steel (permanent water stress)	T
Glass	+
Ceramic, glazed	+
Ceramic, glazed (permanent water stress)	1216
Ceramics, unglazed	1215
Ceramic, unglazed (permanent water stress)	1216
Copper	-
Brass	-
Natural stone / marble	-
Zinc, galvanised iron	-

1) Please pay attention to the information given in the application information

+ = 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.

While curing small amounts of acetic acid 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.

Avoid contact with materials which contain bitumen and which release solvents, e. g. butyl, EPDM, neoprene, insulating- and bituminous paint.

Application information

The acetate silicon OTTOSEAL® S 27 is not to be used on absorbent, mineral substrates (i.e. concrete) in constantly wet areas and under water.

Moisture in the substrate can cause salt efflorescences on mineral substrates, which may reduce the adhesion of the silicone sealant.

Do not apply the primer beyond the joint flanks, if required mask the material. Non-ferrous and non-corrosion-resistant sheet metal can be oxidized by the acetic acid which forms while curing.

The silicone sealant has to be completely cured (depending on the depth of the joint it takes at least 4 days), before filling tanks with water.

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
● grey	S27-04-C02
● RAL 7004	S27-04-C7004
○ transparent*	S27-04-C00
○ white*	S27-04-C01
Pieces per packaging unit	20
Pieces per pallet	1200

* Tested in accordance with the specifications of the silicone transition recommendation for use in contact with drinking water (as of October 15, 2024) in accordance with DIN EN 12873, DIN EN 1420, and DIN EN 16421.

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.