

OTTOSEAL®**S 27****Technical Datasheet****Characteristics:**

- 1-component acetate-curing silicone sealant
- Tested for applications in the food and drinking water sector
- Good chemical resistance, e. g. to diluted acids and bases
- High resistance to notches, tension and tearing
- 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:

- Declaration of no objection when in contact with food (ISEGA Forschungs- und Untersuchungs-Gesellschaft mbH, Aschaffenburg, Germany)
- Positively tested for compatibility when in contact with food (by the Chemical Laboratory Dr. Stegemann, Georgsmarienhütte, Germany)
- Tested and licensed according to the KTW guidelines of the Federal German Environment Agency for the cold water area (elastic jointing between ceramic tiles)
- Tested and licensed according to the DVGW worksheet W 270 (elastic jointing between ceramic tiles)

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.

After curing the product is completely odourless, physiologically harmless and unmodified.

The required vulcanization time prolongs with increasing thickness of the silicone layer. One-component silicones must not be used for full-surface bonding applications unless special constructional prerequisites are met. 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.

Technical properties:

Skin-forming time at 23 °C / 50 % RAH	approx. 10 minutes
Curing in 24 hours at 23 °C / 50 % RAH	approx. 2 - 3 mm
Processing temperature	+5 °C up to approx. +35 °C
Viscosity (23 °C)	pasty, stable
Density at 23 °C	approx. 1,04 g/cm ³
Shore-A-hardness (DIN 53 505)	approx. 25
Permissible movement capability	25 %
Stress expansion modulus at 100 % (DIN 53 504, S3A)	approx. 0,50 N/mm ²
Breaking expansion (DIN 53 504, S3A)	approx. 575 %
Tensile strength (DIN 53 504, S3A)	approx. 1,4 N/mm ²



Temperature resistance -40 °C up to approx. +180 °C
 Shelf life at 23 °C / 50 % RAH in original, unopened packagings 12 months
 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.
 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 OTTO Primer 1215, 1217 and 1218 are subject to the obligation to inform and to keep records according to the Regulation of Chemical Interdiction (amongst others prohibition of self service) since 01.11.2005. Please observe the Technical Data Sheets (www.otto-chemie.com).
 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)	1218
Copper	-
Brass	-
Natural stone / marble	-
Zinc, galvanised iron	-

+ = good adherence without primer

- = not suitable

T= Test/pilot test advised

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

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.

According to NSF 61 approved for drinking water up to 23°C (73 F) max. and a maximum surface area to volume ratio for the sealant of 47 cm² per litre water (7,3 square inches/l)

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 % RAH) 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: Please see the packagings available from stock in our current General Catalogue for Building Products.

Trading unit/Container	Packaging unit	Pieces per pallet
310 ml cartridge	20	1200

Colours:	C02	grey	C01	white
	C00	transparent	C7004	RAL 7004

Safety precautions: Please observe the material safety data sheet.

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 experiences. However, since conditions and methods of use and application of our products are beyond our control, we suggest you to 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 conclusively. 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.com>.

