

**OTTOSEAL®****S 140****Technical Datasheet****Characteristics:**

- Neutral-curing 1-component silicone sealant
- Contains the OTTO FUNGITECT® Silver Technology, harmless-to-health and environmentally benign
- Excellent weathering, ageing and UV-resistance
- Does not cause any migratory staining on natural stone
- High notch strength

**Fields of application:**

- Sealing and jointing in bathroom area with high stress on the silicone joints, e. g. in wetrooms, in public shower and bathing areas, in swimming pools, in stadia, gymnasiums, hospitals, thermal baths, spa areas, hotel bathrooms, etc.
- For jointing on ceramic tiles and natural stone in permanent wet condition
- Well suitable for floor joints
- Sealing of swimming pools and -baths as well as elastic jointing on the pool edges
- Sealing and bonding of PVC-pond liners

**Standards and tests:**

- "Especially recommendable economic building material" according to building material list (TOXPROOF) of the TÜV Rheinland, Germany

**Important information:**

Do not use any detergent or disinfectant (e. g. OTTO Anti Schimmelspray), which contains hypochlorite, **on the surface** of the sealant compound.

When using detergents, please make sure to not just use acidic detergents, but to neutralize immediately by using alkaline detergents. The risk of a fungus attack increases when using such detergents.

Before applying the adhesive / sealant the user has to ensure that the materials in the area of contact (solid, liquid and gaseous) are compatible with the adhesive / sealant and do not damage or alter (e. g. discolour) them. As for the materials that will be used at a later stage in the surrounding area of the adhesive / sealant 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 adhesive / sealant. In case of doubt the user should consult the respective manufacturer of the material.

During the curing process of the material reaction products of the crosslinker 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 except special xzy are provided. 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.

We recommend washing off the vulcanised sealant with clear water before flooding the swimmingpool in order to remove residues of smoothing agent from the surface. Residues of smoothing agent might cause implantation and growth of microorganism and an attack of fungus.

The disinfection of the swimming pool water with chlorine is indispensable. In addition to that, alternative processes may also be used. In order to prevent an attack of fungus effectively, a sufficient chlorine disinfection must however be ensured. Alternative processes like UV-radiation or ozonization show insufficient disinfecting effect. As mentioned that is indispensable though to prevent an attack of fungus.



Water conditions must be as follows: Swimming pool: 0.3 - 0.6 mg/litre of free chlorine; warm water whirlpool: 0.7 - 1.0 mg/litre of free chlorine; The current status of technique allows an amount of up to 1.2 mg/litre of free chlorine. The pH value of pool water is optimal if the value is regulated to 7.0. Deviations up and down between 6.5 and 7.6 are allowed in fresh-water. Please note: A very strong smell of chlorine indicates an incorrect pH value of the swimming pool water. Please check the pH value and regulate it properly.

Regular water circulation is indispensable. It should always be activated and not be interrupted at any time. Due to interruptions, partial variable chlorine concentrations may occur and may partially fall below the minimum concentration of 0.3 mg/litre. This falling below the minimum concentration causes germination of all existing spores and an attack of fungus. To ensure proper water circulation, the pool water should run constantly over the overflow edge of the pool.

Upon restoring of joints contaminated with mould the existing elastic sealant must be removed completely. Before re-jointing, the affected jointing areas are to be treated with OTTO Anti-Mildew Spray to remove possibly existing fungal spores. Otherwise a new mould attack may occur in the joints again, despite the mould protection technology of the sealant. Please observe the Technical Datasheet of OTTO Anti-Mildew Spray.

**Technical properties:**

Skin-forming time at 23 °C / 50 % RAH	approx. 5 minutes
Curing in 24 hours at 23 °C / 50 % RAH	approx. 2 mm
Processing temperature	+5 °C up to +35 °C
Viscosity (23 °C)	stable, pasty
Density at 23 °C	approx. 1,01 g/cm <sup>3</sup>
Shore-A-hardness (DIN 53 505)	approx. 30
Permissible movement capability	20 %
Stress expansion modulus at 100 % (DIN 53 504, S3A)	approx. 0,6 N/mm <sup>2</sup>
Breaking expansion (DIN 53 504, S3A)	approx. 350 %
Tensile strength (DIN 53 504, S3A)	approx. 1,5 N/mm <sup>2</sup>
Temperature resistance	-40 °C up to +180 °C
Shelf life at 23 °C / 50 % RAH for cartridge / foil bag	12 months

These data are not suitable for the issuing 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.de](http://www.otto-chemie.de)). 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.

Acrylic glass / PMMA (Plexiglas® , etc.)	-
Acrylic bathroom surfaces (e. g. bath tubs)	1101
Aluminium	+ / 1216
Aluminium anodized	1216
Aluminium powder-coated	1101 / T
Concrete	1105 / 1215 / 1218
Concrete (permanent water stress)	1218
Concrete block	1216 / 1218
Lead	T
Stainless steel	1216
Iron	+ / 1216
Epoxid resin coating	+ / 1216
Glass	+

Wood, painted (solvent systems)	+
Wood, painted (aqueous systems)	+
Wood, varnished (solvent systems)	+
Wood, varnished (aqueous systems)	+
Wood, untreated	+ (1)
Ceramic, glazed	+ / 1216
Ceramic, glazed (permanent water stress)	1216
Ceramics, unglazed	+ / 1218
Ceramic, unglazed (permanent water stress)	1218
Plastic profiles (unplasticized, e. g. Vinnolit)	1227
Copper	+ / 1216 (2)
Melamine formaldehyde resins (e. g. Resopal® )	1216
Brass	1216 (3)
Natural stone / marble	1216
Natural stone (marble, granite, etc.) (permanent water stress)	1218
Polyester	+
Polypropylene	-
Cellular concrete	1105 / 1215
Plaster	+ / 1105 / 1215
PVC unplasticized	1227
PVC - soft - foils	1217
PVC-pond liner	1218
Tinplate	1216
Zinc, galvanised iron	+ / 1216

+ = good adherence without primer

- = not suitable

T= Test/pilot test advised

1) Upon high exposure to water please contact our Technical Department.

2) The reaction of neutral silicone with non-ferrous metals, such as copper, brass, etc. is possible. Upon curing unblocked air admission is necessary.

3) The reaction of neutral silicone with non-ferrous metals, such as copper, brass, etc. is possible. Upon curing unblocked air admission is necessary.

#### Application information:

We recommend OTTO Marble Silicone Smoothing Agent (undiluted) for smoothing on marble and natural stones. Excess smoothing agent must be washed off/removed immediately. We advise against the use of conventional smoothing liquids (such as washing-up liquids), since some natural stones are very sensitive and stains/spots might be caused on the surface of the natural stone. With all other substrates OTTO Glättmittel can be used for smoothing too.

Especially with unpolished natural stone surfaces make sure not to spread the sealant beyond the joins, as the sealant is difficult to remove once it enters the pores of the natural stones.

The curing time, depending on the thickness of the sealant layer and ambient temperature and atmospheric humidity, is minimum 4 days, preferably 2 weeks, before filling the swimming pool with water.

Because of the variety of possible influences while processing and applying customer tests are required.

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:

C990	adria blue	C67	anthracite
C02	grey	C43	manhattan



C77	silk grey	C116	snow-white
C18	sanitary grey		

**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 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. If you happen to not have our general terms and conditions at hand, we will gladly send them to you upon request. You can also find them on our homepage: [http://www.otto-chemie.de/englisch/unternehmen/agb/AGB-Englisch\\_04-05.pdf](http://www.otto-chemie.de/englisch/unternehmen/agb/AGB-Englisch_04-05.pdf)

