

OTTOSEAL® S 140

Technical Data Sheet

Characteristics

- Neutral-curing silicone sealant
- All colours contain the OTTO Fungitect Silver Technology, harmless-to-health and environmentally benign
- Excellent weathering, ageing and UV resistance
- High notch resistance
- Guaranteed not to cause any migratory staining on natural stone

Fields of application

- Underwater joints in swimming pools
- Jointing in continuously wet conditions
- Special sealant for seals and joints in areas with high stress of the silicone joints, e.g. damp locations, shower and bathing areas, in swimming pools, in stadiums, gymnasiums, hospitals, thermal baths, wellness areas, hotel bathrooms, etc.
- For joints on ceramic tiles and natural stone
- Extremely suitable for floor joints

Advantages

- Contains special fungicide
- Prolonged protection against mould and micro organisms
- In comparison to other bathroom area silicones, maintenance intervals concerning mould growth are elongated.
- Suitable for marble and natural stone
- Non corrosive
- Fast curing
- Good chemical and temperature resistance
- Does not contain solvents, formaldehyde, CFC, PCB, PCP
- Available in 7 colours ex warehouse

Technical properties

Viscosity (23 °C):	non-sag, pasty
Density:	approx. 1.01 g/cm ³
Shore-A hardness (DIN 53505):	approx. 30
Tensile elongation (DIN 53504):	approx. 350 %
Tensile strength (DIN 53504):	approx. 1.5 N/mm ²
Modulus at 100 % elongation:	approx. 0.6 N/mm ²
Movement capability:	20 %
Temperature resistance:	- 40 °C up to + 180 °C
Tooling temperature:	+ 5 °C up to + 35 °C
Skin-forming time (23°C, 50 % RH):	approx. 5 min.
Curing in 24 hours (23°C, 50 % RH):	approx. 2 mm
Shelf life	12 months from the date of manufacture at room temperature

These data are not intended for preparing specifications. Please contact **OTTO-CHEMIE** before writing specifications.

Application information

Preparation of surfaces

The joint flanks and surfaces must be clean, dry, free from fat and firm. We recommend OTTO Cleaner T for cleaning the surfaces. For pretreatment with primers please observe the information on the primer table. Primers must be applied very carefully, because stains/spots might appear if primers are spread or spattered on the surface of some natural stones. For sealings in underwater applications on absorbent mineral surfaces pretreatment with OTTO Primer 1218 is necessary.

Primer table

Acrylic bathroom surfaces (bath tubs)	1101	Copper	+ / 1216
Aluminium	+ / 1216	Glass	+
Aluminium, anodised	1216	Iron, sand blasted	1216
Artificial stone / pre-cast stone	1216 / 1218	Natural stone / Marble	1216 / 1218
Brass	1216	PVC soft, foils	1217
Ceramics, glazed	+ / 1216	PVC exempt from plasticiser	1227
Ceramics, unglazed	+ / 1218	Stainless steel, rust-proof	1216
Concrete	1105 / 1218	Tinplate	1216
		Zinc, galvanised iron	+ / 1216

+ = good adhesion without primer

Application information

Special information

The OTTO Fungitect Silver-Technology in OTTOSEAL® S 140 protects the sealant longer against mould formation. In contrast to customary fungicides, Fungitect is not being washed out of the sealant even if strained by strong water impact and hence can develop its properties over a longer period of time.

To minimize an attack of fungus on the swimming pool and natural stone silicone **OTTOSEAL® S 140**, OTTO-CHEMIE strongly recommends the following details.

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 be ensured. Alternative processes like UV-radiation or ozonization show insufficient disinfecting effect.

We recommend washing off the vulcanised sealant with clear water in order to remove residues of smoothing agent from the sealant surface. Residues of smoothing agent might cause an attack of fungus.

Water conditions have to 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 present state of the art 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 upwards and downwards 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. The pH value must then be checked and regulated properly.

Regular water circulation is indispensable and must not be interrupted at times. Due to interruptions, partial variable chlorine concentrations may arise and may partially fall below the minimum concentration of 0.3 mg/litre. This drop causes germination of all existing spores and an attack of fungus. In order to ensure proper water circulation, the pool water should run constantly over the overflow edge of the pool.

When using detergents, no acid detergents should be used as such detergents increase the danger of an attack of fungus.

When reconstructing affected silicone joints, the silicone sealant must be removed completely. After removing the silicone the subsurface has to be disinfected with Anti-Mildew spray. Otherwise penetrated fungus spores would grow quite fast through the renewed silicone sealant to the surface.

The required vulcanisation time prolongs with increasing thickness of the silicone. One part silicones must not be used for bonding applications where the silicone is supposed to be spread all over the surface. Such applications require a special design – please contact our technical service department. One-part silicones are not designed to be used in layers of more than 15 mm.

Application information

For sealing in combination with PVC-swimming pool-foils e.g. DLW delifol, Trocal WBV etc., pretreating with OTTO Primer 1217 is necessary. Apply OTTO Primer 1217 in a thin and even way on the foil and let it dry for 15 min. Prefill the joint with a closed-cell back-up foam rod.

Please provide good air ventilation during **tooling and curing** of **OTTOSEAL® S 140**.

Depending on thickness of the sealing, ambient temperature and air humidity **OTTOSEAL® S 140** should at least cure for 4 days before filling the swimming pool with water. A curing time of 2 weeks is recommended.

Before applying the adhesive / sealant the user has to ensure that the building 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 building materials that will be used at a later stage in the surrounding area of the adhesives/sealants 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 adhesives/sealants. In case of doubt the user has to consult the manufacturer of the building material concerned. However, because conditions and methods of use of our products are beyond our control, customer tests are required to ensure that our products are safe, effective and fully satisfactory for the intended end use. Please observe the recommended shelf life that is printed onto the packaging. Deplete opened packagings soon.

Direct contact between the sealant and the following plasticiser emitting materials should be avoided: butyl rubber, EPDM, neoprene, insulating paint, bituminous coatings, etc.

Smoothing

We recommend OTTO Marble Silicone Smoothing Agent for smoothing. Some natural stones are very sensitive to conventional smoothing liquids such as washing-up liquids - stains/spots are caused very often on the surface of the natural stone.

The sealant must not be spread on the surface of the natural stone, because the sealant is difficult to remove once it is in the pores of the natural stone, especially in the pores of unpolished natural stones.

Application of the Adhesive/Sealant

Avoid trapped air: For optimal Adhesion and good mechanical properties trapped air must be avoided.

Technical service and consulting

Technical service and consulting

Our technical department provides laboratory facilities and application support.

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Colours	C990 – adria blue	C18 – sanitary grey
	C67 – anthracite	C77 – silk grey
	C02 – grey	C116 – snow-white
	C43 – manhattan	

Other Colours are available upon request.

Packaging	Unit	Units per box	Units per pallet
	Cartridges 310 ml	20	1200

Other packaging are available upon request.

Safety precautions Please refer to the material safety data sheet.

Disposal Disposal should be made in accordance with federal, state and local regulations.

Warranty information

All information in this publication is based on our current technical knowledge and experiences. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Otto-Chemie's products are safe, effective and fully satisfactory for the intended end 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.) include in case of doubt no acceptance of a guarantee. Otto-Chemie's sole warranty is that the product will meet the Otto-Chemie sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. Otto-Chemie specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability, unless Otto-Chemie provides you with a specific, duly signed endorsement of fitness for use. Otto-Chemie disclaims liability for any incidental or consequential damages. Suggestions of use shall not be taken as inducements to infringe any patent. All mentioned document conditions in this technical data sheet lay down the terms of delivery fully and completely. We reserve the right to alter product constants within the scope of technical progress or new developments. We are pleased to be at your disposal for inquiries, also regarding specific application problems. If the application in which the products are used requires governmental approval or clearance, the user is responsible to obtain such approval. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and if necessary, clarifying the position. In the event of deficiency our terms and conditions are applicable. If our terms and conditions are not with you, we send them to you on request.

