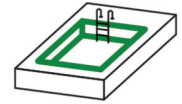


OTTOSEAL® S 18 SPECIAL

The swimming pool silicone



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

For indoor and outdoor application

S 18

Characteristics

- ▶ Extremely resistant to continuously wet conditions
- ▶ Resistant to chlorine and salt water
- ▶ Contains extra fungicide - High resistance to mould infestation
- ▶ Very good adhesion on many substrates even without primer (see the primer table)
- ▶ Does not cause corrosion on unprotected metal surfaces
- ▶ High resistance to notches and tearing - Resistant to high mechanical stresses
- ▶ Excellent weathering, ageing and UV-resistance

Fields of application

- ▶ Sealing of swimming pools and -baths as well as elastic jointing on the pool edges

Standards and tests

- ▶ 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. 14+17+31+35 (IVD = German industry association sealants)

Technical properties

Skin-forming time at 23 °C/50 % RH [minutes]	~ 6
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	~ 20
Permissible movement capability [%]	25
Stress expansion modulus at 100 % according to ISO 37, type 3 [N/mm²]	~ 0,3
Tensile expansion according to ISO 37, type 3 [%]	~ 700
Tensile strength according to ISO 37, type 3 [N/mm²]	~ 1,4
Temperature resistance from/to [°C]	- 40 / + 180
Shelf life at 23 °C/50 % RH [months]	15 ¹

1) from production

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

Pretreatment

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OTTO
 CHEMIE
 SEALING & BONDING



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

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.

Acrylic glass/PMMA	T
Aluminium	1216
Aluminium anodized	1216
Concrete	1105 / 1218
Concrete (permanent water stress)	1218
Chrome	1216
Stainless steel	1216
Ceramic, glazed (permanent water stress)	1218
Ceramic, unglazed (permanent water stress)	1218
Ceramic, glazed	+ / 1215
Ceramics, unglazed	+ / 1215
Natural stone / marble	OTTOSEAL® S 70 / S 140
Natural stone (marble, granite, etc.) (permanent water stress)	OTTOSEAL® S 70 / S 140
Polycarbonate	T
Polyester	1217
PVC soft / swimming pool liner	1101 / 1217

+ = 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.

During the curing process of the material reaction products of the crosslinker are released.

Ensure good ventilation during application and curing.

The sealant thickness in the joints with back-up foam rod OTTOCORD PE-B2 is to be limited to max. 10 mm. If the depth of the joint is too low, a PE foil can be placed in the base of the joint in order to prevent a three-edge bond of the sealant.

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 10 mm please contact our technical department beforehand.

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 sealant is heavily equipped with fungicides and resistant to salt water and chlorine in the usual amount used as swimming pool disinfection. To minimize an attack of fungus on the sealant, the following indications must be paid attention to: The disinfection of the swimming pool water with chlorine is indispensable. In addition to that, alternative procedures may also be used. In order to prevent an attack of fungus effectively, a sufficient chlorine disinfection must be ensured. Alternative procedures such as UV-radiation or ozonization have no disinfecting effect. This is however essential 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.

For cleaning purposes preferably use neutral or alkaline detergents as fungus multiplies quicker in an acidic environment.

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

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.

Application information

OTTOSEAL® S 18 is not suitable for aquaria. For this purpose we recommend OTTOSEAL® S 28.

OTTOSEAL® S 18 is not suitable for drinking water tanks. For this purpose we recommend OTTOSEAL® S 27.

OTTOSEAL® S 18 is not suitable for marble or natural stone swimming pools. For this purpose we recommend OTTOSEAL® S 70.

With OTTOSEAL® S 140 we offer a swimming pool silicone with prolonged protection against mildew.

For backfilling of joints please use closed cell PE-Back-up foam rod.

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.

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	S18-04-C02
● silk grey	S18-04-C77
○ transparent	S18-04-C00
○ white	S18-04-C01
Pieces per packaging unit	20
Pieces per pallet	1200

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.