

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

For indoor and outdoor application

S 70



Characteristics

- ▶ Compatible with natural stone according to ISO 16938-1 - Does not cause any migratory staining on natural stone
- ▶ Available in matte colours - Harmonises perfectly with matte surfaces
- ▶ Available in "structure" colours - Harmonises perfectly with surfaces that are similar to stones
- ▶ Contains fungicides - Resistance to mould infestation
- ▶ Does not cause corrosion on unprotected metal surfaces
- ▶ Excellent weathering, ageing and UV-resistance

Fields of application

- ▶ Sealing of expansion joints in the area of floors and walls areas
- ▶ Sealing of expansion joints in the area of facades
- ▶ Sealing expansion and connection joints in bathroom areas
- ▶ Sealing of swimming pools and -baths as well as elastic jointing on the pool edges
- ▶ For the external sealing of mirrors in connection with natural stone
- ▶ For jointing on ceramic slabs and natural stone in exterior areas
- ▶ For jointing on marble and all natural stones, e. g. sandstone, quartzite, granite, gneiss, porphyry etc. in interior and exterior areas
- ▶ Sealing of lacquered and enamelled glass
- ▶ Movement-compensating bonding of natural stone on metal, e. g. stairs on a metal construction

Standards and tests

- ▶ Tested according to EN 15651 – Part 1: F EXT-INT 25 LM / F EXT-INT CC 20 LM
- ▶ Tested according to EN 15651 – Part 3: XS 1
- ▶ Tested according to EN 15651 – Part 4: PW EXT-INT 25 LM - applies only to the matt shades of OTTOSEAL® S 70 - all other shades comply with PW INT 12,5 E
- ▶ Tested fire behaviour in accordance with EN 13501: class E
- ▶ Tested according to ISO 16938-1 of SKZ Würzburg (Testing for migratory staining of sealants on natural stone)
- ▶ Tested according to ASTM C 1248 by DL Laboratories, New York (Testing for migratory staining of sealants on natural stone)
- ▶ Declaration of no objection – tested for use in food-related area (ISEGA Forschungs- und Untersuchungs-Gesellschaft mbH, Aschaffenburg, Germany)
- ▶ EMICODE® EC 1 Plus - very low emission
- ▶ Quality seal of the IVD (Industrial association for sealants, registered society), tested by the ift Rosenheim (Institute of window engineering, registered society)
- ▶ French VOC-emission class A+



- ▶ Declaration in "baubook" Austria
- ▶ According to regulation (EG) no. 1907/2006 (REACH)
- ▶ Quality assured sealant for individually manufactured all-glass showers as per RAL-GZ 657
- ▶ Suitable for applications according to IVD instruction sheet no. 1+3-1+3-2+9+14+23+25+27+30+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
Density at 23°C according to ISO 1183-1, matt [g/cm³]	~ 1,3
Shore-A-hardness according to ISO 868	~ 18
Shore-A-hardness according to ISO 868, matt colours	~ 30
Permissible movement capability [%]	25
Stress expansion modulus at 100 % according to ISO 37, type 3 [N/mm²]	~ 0,5
Tensile expansion according to ISO 37, type 3 [%]	~ 600
Tensile strength according to ISO 37, type 3 [N/mm²]	~ 1,4
Temperature resistance from/to [°C]	- 40 / + 180
Extrusion rate according to ISO 8394-1 [g/min.]	~ 130 - 160
Shrinkage of volume according to ISO 10563 [%]	~ 6
Shelf life at 23 °C/50 % RH for cartridge/foil bag [months]	15 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.

ABS	T
Acrylic glass/PMMA	T
Acrylic bathroom surfaces (e. g. bath tubs)	+ / 1101
Aluminium	+
Aluminium (permanent water stress)	1216
Aluminium anodized	+
Aluminium, anodised (permanent water stress)	1216
Aluminium powder-coated	1101 / T
Aluminium powder-coated (contains teflon)	T
Concrete	1105 / 1215 / 1218
Concrete (permanent water stress)	1218
Concrete block	1216
Lead	+
Stainless steel	1216
Iron	+
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	+ ²
Ceramic, glazed (permanent water stress)	1216
Ceramics, unglazed	+
Ceramic, unglazed (permanent water stress)	1218
Clinker	+ / 1216
Artificial stone	+ / 1216
Plastic profiles (unplasticized, e. g. Vinnolit)	+ / 1227
Copper	+ / 1216 ³
Melamine resin panels	+ / 1216
Brass	+ / 1216 ³
Solid surface material	+ / 1216 / 1225
Natural stone	+ / 1216 ⁴
Natural stone (marble, granite, etc.) (permanent water stress)	1216 / 1218 ⁵
Polyester	+
Polyester (permanent water stress and underwater)	1217
Polypropylene	T
Cellular concrete	1105 / 1215
Plaster	+ / 1105 / 1215
PVC unplasticized	1217 / 1227
PVC soft / swimming pool liner	+ / 1217 / 1227
Sandstone	1102
Tinplate	1216
Zinc, galvanised iron	1216

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

2) When using ceramic tiles with a special surface coating such as Ceramicplus of Villeroy + Boch we recommend a pre-treatment with OTTO Cleanprimer 1226. When using ceramic tiles with other surface coatings it is advisable to contact our Technical Department or make preliminary tests.

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

4) Depending on the nature of external influences and the kind of natural stone it may be necessary to use a primer. For natural stone in contact with water (i.e. bathrooms and showers) we generally advise the use of OTTO Primer 1216. For jointing natural stone in swimming pools and sauna's and also for other applications under water please contact our technical department.

5) Pre-treat natural stones with little absorption (e.g. granite) with OTTO Primer 1216, and strongly absorbent natural stones (e.g. quartzite) with OTTO Primer 1218 in the underwater area.

+ = 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.

So as not to overstrain the stress-compensating product in its movement absorption and its compressive strength in bonds with high load-bearing capacities (e.g. of natural stone slabs), we recommend providing pressure-resistant support (plastic glazing blocks).

Remark on the processing of the colour "stainless steel": Please note that when "modelling" the silicone, i. e. when silicone layers are pushed on top of each other (e. g. in corner areas) dark, clearly visible dividing lines could appear. These dividing lines can not be removed by smoothing the lines afterwards. This effect occurs solely for the colour "stainless steel" and is caused by a special colour pigment which is necessary to create the metallic effect. It is a typical characteristic of the colour "stainless steel" and it does not represent a deficiency of the material. In order to avoid such effect, layers of silicone should not be pushed on top of each other when smoothing material.

The sealant is fungicidal and resistant to salt water and chlorine in the usual concentrations in swimming pools.

Smoke from cigarettes or similar environmental influences may lead to discolouring of the sealant.

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

Indoors without daylight or in the case of sporadic artificial lighting, alkoxy/oxime/amine silicone sealants may exhibit a yellowing over time, especially in transparent and light colours. If technically possible, it is recommended to use acetate silicones in these cases.

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.

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Application information

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

In particular in sensitive, rough and absorbent natural stone surfaces such as sandstone and limestone, we recommend taping off the joint edges in order to keep the sealant from being pressed into the natural stone surface when smoothing. This will cause stains that cannot be removed later. Dust deposits on the silicone residues may lead to further contamination.

Observe the following when smoothing matte colours with OTTO natural stone smoothing agents: The joints should only be tooled once with a smoothing tool, which was dipped in OTTO natural stone smoothing agent. The more often the surface is reworked with smoothing agent, the more the matte effect is lost and the joint becomes glossier.

For smoothing use OTTO natural stone smoothing agent (undiluted). Wash / remove excess smoothing agent immediately. We do not recommend the use of usual smoothing agents (e. g. dishwashing detergents etc.) because of the high sensibility to staining of some marble and natural stone varieties.


















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	400 ml aluminium foil bag
 adria blue	S70-04-C990	on request
 anthracite	S70-04-C67	S70-07-C67
 anthracite grey	S70-04-C137	on request
 bahamabeige	S70-04-C10	S70-07-C10
 concrete grey	S70-04-C56	S70-07-C56
 brown	S70-04-C05	on request
 chinchilla	S70-04-C45	on request
 thistle grey structure	S70-04-C111	on request
 dark green	S70-04-C37	on request
 stainless steel	S70-04-C197	on request
 flash grey	S70-04-C787	on request
 joint grey	S70-04-C71	on request
 joint grey structure	S70-04-C110	on request
 galaxy	S70-04-C4720	on request
 graphite black	S70-04-C1391	on request
 grey blue structure	S70-04-C47	on request
 grey red structure	S70-04-C41	on request

Glossy colors

 fair blue structure	S70-04-C44	on request
 fair grey structure	S70-04-C109	on request
 autumn grey	S70-04-C1108	on request
 jasmin	S70-04-C08	on request
 labrador blue	S70-04-C1390	on request
 light grey	S70-04-C38	on request
 manhattan	S70-04-C43	S70-07-C43
 night grey	S70-04-C1109	on request
 fog	S70-04-C230	on request
 pergamon	S70-04-C84	on request
 pearl grey	S70-04-C80	on request
 red beige	S70-04-C82	on request
 sand red structure	S70-04-C32	on request
 sandstone beige	S70-04-C1110	on request
 sanitary grey	S70-04-C18	S70-07-C18
 black	S70-04-C04	on request
 silver green structure	S70-04-C34	on request
 sunset	S70-04-C26	on request
 transparent	S70-04-C00	S70-07-C00
 white	S70-04-C01	on request
Pieces per packaging unit	20	20
Pieces per pallet	1200	900

Matte colors

	310 ml cartridge	400 ml aluminium foil bag
 matt anthracite	S70-04-C1300	on request
 matt anthracite grey	S70-04-C6116	on request
 matt bahamabeige	S70-04-C6115	on request
 matt concrete grey	S70-04-C6113	on request
 matt jasmin	S70-04-C6117	on request
 matt manhattan	S70-04-C1282	on request
 matt sanitary grey	S70-04-C6111	on request
 matt black	S70-04-C6114	on request
 matt white	S70-04-C6112	on request
Pieces per packaging unit	20	20
Pieces per pallet	1200	900

Due to typographical reasons the colours shown below may differ from the original colours of the products. For an exact colour display please request our original colour charts.

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.