

OTTOSEAL®**S 120**

Technical Datasheet

**1-component silicone sealant based on alkoxy, neutral cross-linking**

For indoor and outdoor application

Characteristic:

- **Highly abrasion-resistant and streak-free according to DIN 18545**
Cleaning without streaks
- **Also available in "matt-finished" colours**
Harmonises with matt and glossy surfaces
- **Contains fungicides**
Resistance to mould infestation
- **Compatible with PVB sheets according to ift guideline DI-02/1**
Suitable for processing VSG
- **Non-corrosive**
No (oxidation) corrosion on unprotected metal surfaces
- **Low odour**
Convenient processing
- **Excellent early resistance to stress**
Safety in the production process
- **Good compatibility with paints according to DIN 52452 (not paintable)**
No interaction with existing and adjacent coatings
- **Excellent weathering, ageing and UV-resistance**
For long-lasting indoor and outdoor applications
- **Stress expansion modulus at 100 % (ISO 37, S3A): 0,4 N/mm²**

Fields of application:

- Window pane sealing on wooden windows
- Glass, window and metal construction
- Sealing double-glazings (e. g. "Profilit")
- Sealing of joints on windows and doors made of wood, metal and plastic
- Expansion joints on prefabricated concrete and cellular concrete units
- Sealing of joints on façades, metal constructions
- Suitable for sealing glazing units
- For the external sealing of mirrors in connection with materials such as ceramic, metal, glass etc.

Standards and tests:

- Tested according to EN 15651 – Part 1: F EXT-INT CC 25 LM
- Tested according to EN 15651 – Part 2: G CC 25 LM
- Tested according to EN 15651 – Part 3: XS 1
- Tested according to EN 15651 – Part 4: PW INT 12.5 E
- Tested according to DIN 18545, stress group E (institute for window techniques)
- According to the requirements of DIN 18540-F
- According to the requirements of ISO 11600 G 25 LM
- Suitable for applications according to IVD instruction sheet no. 7+9+10+13+14+19-1+20+22+24+25+27+29+31+32+35 (IVD = Germanindustry association sealants)
- Quality seal of the IVD (Industrial association for sealants, registered society), tested by the ift Rosenheim (Institute of window engineering, registered society)

- According to regulation (EG) Nr. 1907/2006 (REACH)
- French VOC-emission class A+
- Declaration in "baubook" Austria
- EMICODE® EC 1 Plus R - very low emission
- For conformity with DGNB and LEED®, see the sustainability data sheet
- Tested fire behaviour in accordance with EN 13501: class E
- Tested according to the BEMMA scheme for museum and show case equipment

Important information:

EMICODE® is a registered trademark of GEV e. V. (Düsseldorf, Germany)

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.

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

Paints, lacquers, plastics and any other coatings must be compatible to the adhesive/sealant.

Do not stack or pack sealed windows/doors earlier than 24 hours after sealing. Otherwise there is a risk of a discolouration of the painting.

During curing small amounts of alcohol are released.

Ensure good ventilation during application and curing.

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.

Matt colours can be smoothed off with smoothing agent.

If using smoothing agent remove the remaining water streaks on the adjoining surfaces immediately after sealing. If the surfaces are cleaned at a later time, permanent streaks may remain.

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

For the sealing butt joints between insulating glass with UV-resistant edge bond based on silicone (e. g. angled glazing, structural glazing façades etc.) we recommend OTTOSEAL® S 7.

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.

Technical properties:

Skin-forming time at 23 °C/50 % RH [minutes]	~ 10
Curing in 24 hours at 23 °C/50 % RH [mm]	~ 2
Processing temperature from/to [°C]	+ 5 / + 40
Viscosity at 23 °C	pasty, stable
Density at + 23 °C [g/cm ³]	~ 1,0
Density at 23°C according to ISO 1183-1, matt [g/cm ³]	~ 1,3
Shore-A-hardness according to ISO 868	~ 21
Shore-A-hardness according to ISO 868, matt colours	~ 31
Permissible movement capability [%]	25 (1)
Class according to ISO 11600	25LM
Stress expansion modulus at 100 % according to ISO 37, S3A [N/mm ²]	~ 0,4
Tensile expansion according to ISO 37, S3A [%]	~ 500 - 700
Tensile strength according to ISO 37, S3A [N/mm ²]	~ 1,4
Temperature resistance from/to [°C]	- 40 / + 120
Extrusion rate according to ISO 8394-1 [g/min.]	~ 110 - 150
Shrinkage of volume according to ISO 10563 [%]	< 10
Shelf life at 23 °C/50 % RH for cartridge/foil bag [months]	12 (2)
Shelf life at 23 °C/50 % RH for pail/drum [months]	12 (2)

1) Please pay attention to standards and tests

2) from date of manufacture

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

Pretreatment:

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.
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 (Plexiglas®, etc.)	-
Acrylic bathroom surfaces (e. g. bath tubs)	+ / 1217 / 1227
Aluminium	+
Aluminium anodized	+
Aluminium powder-coated	1101 / T
Aluminium powder-coated (contains teflon)	T
Concrete	+ / 1105 / 1215
Concrete block	-
Lead	T
Stainless steel	+ / 1216
Iron	T
Epoxid resin coating	T
Glass	+ / 1226
Wood, painted (solvent systems)	+ / T (1)
Wood, painted (aqueous systems)	+ / T (1)
Wood, varnished (solvent systems)	+ / 1216 (1)
Wood, varnished (aqueous systems)	+ / T (1)
Wood, untreated	+(2)
Ceramic, glazed	+
Ceramics, unglazed	+
Clinker	1215
Plastic profiles (unplasticized, e. g. Vinnolit)	1217 / 1227 / T
Copper	+(3)
Melamine formaldehyde resins (e. g. Resopal®)	T
Brass	+(3)
Natural stone / marble	-
Polyester	T
Polypropylene	-
Cellular concrete	1105 / 1215
Plaster	1105 / 1215
PVC unplasticized	1217 / 1227
PVC-soft-foils	1217 / 1227
Tinplate	+
Zinc, galvanised iron	+

1) Due to the large number of painting systems for wooden windows, it is not possible to make a general statement regarding bonding and compatibility. For this reason, individual preliminary experiments are necessary.

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

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

+ = good adherence without primer

- = not suitable

T = Test/pilot test advised

Application information:

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:**Paints filled (matte)**

	310 ml cartridge	400 ml aluminium foil bag	580 ml aluminium foil bag
matt anthracite	S120-04-C7103	S120-07-C7103	on request
matt beech	S120-04-C7111	on request	on request
matt black	S120-04-C7112	on request	S120-08-C7112
matt bronze	S120-04-C7109	on request	on request
matt brown	S120-04-C1416	on request	on request
matt chestnut	S120-04-C7114	on request	on request
matt concrete grey	S120-04-C7102	on request	on request
matt dark brown	S120-04-C7107	on request	on request
matt dark grey	S120-04-C7113	on request	on request
matt dark oak	S120-04-C7104	on request	on request
matt fair brown	S120-04-C7094	on request	on request
matt fair grey	S120-04-C7101	on request	on request
matt fair oak	S120-04-C7105	on request	on request
matt manhattan	S120-04-C6874	on request	on request
matt ochre	S120-04-C7100	on request	on request
matt pergamum	S120-04-C7098	on request	on request
matt sanitary grey	S120-04-C6834	on request	on request
matt silk grey	S120-04-C7110	on request	on request
matt silver-grey	S120-04-C6645	on request	on request
matt snow-white	S120-04-C6832	on request	on request
matt white	S120-04-C6919	on request	S120-08-C6919
Packaging unit	20	20	20
Pieces per pallet	1200	900	600

Paints unfilled (gloss)

	310 ml cartridge	400 ml aluminium foil bag	580 ml aluminium foil bag	20 l hobbock
anthracite	S120-04-C155	on request	S120-08-C155	on request
beech	S120-04-C76	on request	on request	on request
black	S120-04-C04	S120-07-C04	S120-08-C04	S120-23-C04
bronze	S120-04-C13	on request	on request	on request
brown	S120-04-C05	on request	on request	on request
chestnut	S120-04-C742	on request	on request	on request
chocolate brown	S120-04-C39	on request	on request	on request
concrete grey	S120-04-C56	on request	on request	on request
dark brown	S120-04-C49	on request	on request	on request
dark grey	S120-04-C03	on request	on request	on request
dark oak	S120-04-C83	on request	on request	on request
fair brown	S120-04-C06	on request	on request	on request
fair grey	S120-04-C904	on request	on request	on request
fair oak	S120-04-C64	on request	on request	on request
manhattan	S120-04-C43	on request	S120-08-C43	on request
sanitary grey	S120-04-C18	on request	S120-08-C18	on request
silk grey	S120-04-C77	on request	on request	on request
silver-grey	S120-04-C94	on request	S120-08-C94	on request
snow-white	S120-04-C116	on request	on request	on request
transparent	S120-04-C00	S120-07-C00	S120-08-C00	S120-23-C00
transparent-grey	S120-04-C284	on request	on request	on request
white	S120-04-C01	S120-07-C01	S120-08-C01	on request

Packaging unit	20	20	20	1
Pieces per pallet	1200	900	600	16

Safety precautions: Please observe the material safety data sheet.
After curing the product is completely odourless.

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 experience. However, since conditions and methods of use and application of our products are beyond our control, we suggest that you 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.de/en/terms-and-conditions>