



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

For indoor and outdoor application

S 110



### Characteristics

- ▶ Excellent weathering, ageing and UV-resistance
- ▶ Very good adhesion on many substrates even without primer (see the primer table)
- ▶ Highly abrasion-resistant and streak-free according to ift-guideline VE-04/2 - For non-streaky cleaning
- ▶ Compatible with PVB sheets according to the criteria of ift guideline DI-02/1 - Suitable for processing VSG
- ▶ Excellent early resistance to stress during component movements
- ▶ Good compatibility with paints according to DIN 52452 (not paintable) - No interaction with existing and adjacent coatings
- ▶ Does not cause corrosion on unprotected metal surfaces
- ▶ Contains fungicides - Resistance to mould infestation



### Fields of application

- ▶ Sealing of expansion and connections joints on prefabricated concrete and cellular concrete units
- ▶ Sealing of joints on façades, metal constructions
- ▶ Sealing of joints on windows and doors made of wood, metal and plastic
- ▶ Sealing double glazings / glass modules
- ▶ Window pane sealing on wooden windows
- ▶ For jointing on glass elements
- ▶ Sealing expansion and connection joints in bathroom areas

### 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 fire behaviour in accordance with EN 13501: class E
- ▶ Tested according to ift-guideline VE-04/2
- ▶ Tested according to FCBA (CTBA) L 114 (suitability of sealants for window pane sealing on wooden windows)
- ▶ According to the requirements of DIN 18540-F
- ▶ According to the requirements of ISO 11600 G 25 LM
- ▶ 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

**Hermann Otto GmbH**  
 Krankenhausstr. 14 | 83413 Fridolfing, Germany  
 ☎ +49 8684 908-0 | ✉ info@otto-chemie.de  
 www.otto-chemie.com

💡 **Application advice**  
 ☎ +49 8684 908-4300  
 @ tae@otto-chemie.de



**SEALING & BONDING**

► According to regulation (EG) no. 1907/2006 (REACH)

### 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, coloured [g/cm³]	~ 1,2
Density at 23 °C according to ISO 1183-1, transparent [g/cm³]	~ 1,0
Shore-A-hardness according to ISO 868, coloured	~ 25
Shore-A-hardness according to ISO 868, transparent	~ 20
Permissible movement capability [%]	25 <sup>1</sup>
Class according to ISO 11600	25LM
Stress expansion modulus at 100 % according to ISO 37, type 3 [N/mm²]	~ 0,4
Tensile expansion according to ISO 37, type 3 [%]	~ 550
Tensile strength according to ISO 37, type 3 [N/mm²]	~ 1,5
Temperature resistance from/to [°C]	- 40 / + 180
Extrusion rate according to ISO 8394-1 [g/min.]	50 - 150
Shrinkage of volume according to ISO 10563 [%]	~ 7
Shelf life at 23 °C/50 % RH for pail/drum [months]	12 <sup>2</sup>
Shelf life at 23 °C/50 % RH for cartridge/foil bag [months]	12 <sup>2</sup>

1) Please pay attention to standards and tests

2) from production

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

### Pretreatment

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	-
Acrylic bathroom surfaces (e. g. bath tubs)	+ / 1101
Aluminium	+
Aluminium anodized	+
Aluminium powder-coated	1101 / T
Aluminium powder-coated (contains teflon)	T
Concrete	+ / 1105 / 1215
Concrete block	-
Lead	+ / 1216
Chrome	1216
Stainless steel	+ / 1216
Iron	1216
Epoxid resin coating	+
Epoxid resin mortar	+
Fibre cement	1105 / 1215
Glass	+ / 1226

Wood, painted (solvent systems)	+ / T <sup>1</sup>
Wood, painted (aqueous systems)	+ / T <sup>1</sup>
Wood, varnished (solvent systems)	+ / T <sup>1</sup>
Wood, varnished (aqueous systems)	+ / T <sup>1</sup>
Wood, untreated	1215 / 1226 <sup>2</sup>
Ceramic, glazed	+
Ceramics, unglazed	+
Clinker	1215
Artificial stone	-
Plastic profiles, e. g. Vinnolit	+ / 1217 / 1227 <sup>3</sup>
Copper	+ <sup>4</sup>
Melamine resin panels	1225
Brass	+ <sup>4</sup>
Natural stone / marble	-
Polyester	+
Polypropylene	-
Cellular concrete	1105 / 1215
Plaster	+ / 1105 / 1225
PVC unplasticized	+ / 1217 / 1227
PVC-soft-foils	1217 / 1227
Tinplate	1216
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) With OTTOSEAL® S 110 transparent a pre-treatment with OTTO Primer 1217 is advisable. And foil-coated plastics should generally be pre-treated with OTTO Primer 1217.

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

+ = 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.

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

Ensure good ventilation during application and curing.

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 15 mm please contact our technical department beforehand.

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.

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.

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.

### 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

#### Matte colors

	310 ml cartridge	400 ml aluminium foil bag	580 ml aluminium foil bag	20 l hobbock
 anthracite	S110-04-C155	S110-07-C155	S110-08-C155	on request
 concrete grey	S110-04-C56	S110-07-C56	S110-08-C56	on request
 bronze	S110-04-C13	on request	on request	on request
 beech	S110-04-C76	on request	on request	on request
 dark brown	S110-04-C49	on request	on request	on request
 dark grey	S110-04-C03	on request	S110-08-C03	on request
 oak	S110-04-C57	on request	S110-08-C57	on request
 dark oak	S110-04-C83	on request	S110-08-C83	on request
 fair oak	S110-04-C64	on request	on request	on request
 fair brown	S110-04-C06	on request	S110-08-C06	on request
 fair grey	S110-04-C20	S110-07-C20	S110-08-C20	on request
 jasmin	S110-04-C1216	on request	on request	on request
 chestnut	S110-04-C742	on request	S110-08-C742	on request
 pine	S110-04-C88	on request	on request	on request
 linsey grey	S110-04-C433	on request	S110-08-C433	on request
 manhattan	S110-04-C43	S110-07-C43	S110-08-C43	on request
 matt brown	S110-04-C1416	on request	S110-08-C1416	on request
 ochre	S110-04-C31	on request	S110-08-C31	on request
 pergamon	S110-04-C84	on request	on request	on request
 RAL 6009	S110-04-C6009	on request	on request	on request
 RAL 7016	S110-04-C7016	S110-07-C7016	on request	on request
 RAL 9001	S110-04-C9001	S110-07-C9001	on request	on request
 RAL 9002	S110-04-C9002	on request	on request	on request
 RAL 9010	S110-04-C9010	on request	S110-08-C9010	on request
 RAL 9016	S110-04-C9016	on request	S110-08-C9016	on request
 sand beige	S110-04-C12	on request	on request	on request
 sanitary grey	S110-04-C18	S110-07-C18	S110-08-C18	on request
 snow white	S110-04-C116	S110-07-C116	on request	on request
 chocolate brown	S110-04-C39	on request	S110-08-C39	on request
 black	S110-04-C04	S110-07-C04	S110-08-C04	S110-23-C04
 silk grey	S110-04-C77	S110-07-C77	S110-08-C77	on request
 silver grey	S110-04-C94	S110-07-C94	on request	on request
 white	S110-04-C01	S110-07-C01	S110-08-C01	S110-23-C01
<b>Pieces per packaging unit</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>1</b>
<b>Pieces per pallet</b>	<b>1200</b>	<b>900</b>	<b>600</b>	<b>16</b>

## Glossy colors

	310 ml cartridge	400 ml aluminium foil bag	580 ml aluminium foil bag	20 l hobbock
 brown	S110-04-C05	on request	S110-08-C05	on request
 mahogany	S110-04-C29	on request	S110-08-C29	on request
 RAL 6005	S110-04-C6005	on request	on request	on request
 transparent	S110-04-C00	S110-07-C00	S110-08-C00	S110-23-C00
 transparent grey	S110-04-C284	on request	on request	on request
 trijs	S110-04-C7686	S110-07-C7686	on request	on request
<b>Pieces per packaging unit</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>1</b>
<b>Pieces per pallet</b>	<b>1200</b>	<b>900</b>	<b>600</b>	<b>16</b>

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.

## Brand information

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

## 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](http://www.otto-chemie.de).