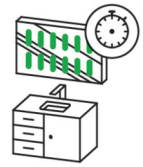


OTTOCOLL® S 610 SPECIAL

The 2-component silicone adhesive



2-component silicone adhesive alkoxy-based, condensation cross-linking For indoor and outdoor application S 610

Characteristics

- ▶ Very fast full curing - Stress can be applied to the bond very quickly
- ▶ Very good adhesion on many materials - Can be used on many materials without pretreatment
- ▶ Elastic - Compensates movements
- ▶ Excellent weathering, ageing and UV-resistance
- ▶ Compatible with PVB sheets according to the criteria of ift guideline DI-02/1 - Suitable for processing VSG

Fields of application

- ▶ Bonding glass in bad weather and UV exposure
- ▶ Bonding of mirrors on ceramic, glass, plastic, stainless steel, aluminium, wood, concrete, etc.
- ▶ Bonding of lacquered and enamelled glass
- ▶ Bonding and mounting different materials, such as wood, wooden materials, plastics, metals and mineral substrates

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. 30+31+35 (IVD = German industry association sealants)

Technical properties

Single components:

A-component

Colour	white
Viscosity at 23 °C	pasty
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,31
Shelf life at 23 °C/50 % RH [months]	9 ¹

1) from production

B-components

	OTTOCURE S-CA 2030	OTTOCURE S-CA 2080
Colour	black	grey
Viscosity at 23 °C	pasty, stable	pasty, stable
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,24	~ 1,23
Mixing ratio according to weight (base A : curing agent B)	10,6 : 1	10,6 : 1
Mixing ratio according to volume (base A : curing agent B)	10 : 1	10 : 1
Shelf life at 23 °C/50 % RH [months]	9 ¹	9 ¹

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1) from production

Unvulcanised compound:

	OTTOCURE S-CA 2030	OTTOCURE S-CA 2080
Colour	black	grey
Viscosity at 23 °C	pasty, stable	pasty, stable
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,30	~ 1,30
Processing temperature from/to [°C]	+ 5 / + 40	+ 5 / + 40
Shore-A-hardness after 4 hours	~ 13 - 23	~ 13 - 23
Shore-A-hardness after 24 hours	~ 37 - 43	~ 37 - 43
Shore-A-hardness after 3 days	~ 45	~ 45
Pot life at 23 °C/50 % RH [minutes]	~ 25 - 50	~ 25 - 50
Shrinkage of volume according to ISO 10563 [%]	~ 4	~ 4

Vulcanisate:

Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,30
Shore-A-hardness according to ISO 868	~ 45
Temperature resistance from/to [°C]	- 40 / + 180
Tensile strength according to ISO 37, type 3 [N/mm²]	2,0 - 3,0
Tensile expansion according to ISO 37, type 3 [%]	250 - 400
Permissible movement capability [%]	20
Retroactivity according to ISO 7389 at 50 % expansion [%]	> 90

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	1217 / T
Aluminium	+
Aluminium anodized	+ / 1101
Aluminium powder-coated	+ / 1101 / T
Concrete	1105
Stainless steel	+ / 1101
Glass	+
Glass, coated	+ / T
Glass, enamelled	+
Wood, untreated	+ / 1215 / 1105 ¹
Cellular concrete	1105
Plaster	1105
PVC unplasticized	1226
Zinc, galvanised iron	+ / T

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

+ = 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 curing small amounts of alcohol are released.

Ensure good ventilation during application and curing.

Application information

To make sure the mixing is correct the user has to carry out accompanying quality checks during application. The according necessary tests have to be gathered from the document "Accompanying Quality Checks for the processing of 2-component Silicones", which is available from our technical department.

Processing of 2-component adhesives and sealants out of side-by-side cartridges:

First of all remove the lids of both component's chambers. Place cartridge into the pistol. Squeeze out material, until material comes out of both chambers. Wipe off material and attach the static mixing nozzle with help of the union nut. Check homogeneity of the mixture.

Processing as mirror adhesive:

Only mirrors should be bonded which have a reflecting and protection layer according to DIN EN 1036. In case of doubt please contact the manufacturer of the mirror.

The following indications are effective for mirrors made of glass as well as for mirrors made of acrylic glass.

For the combination with anti-splinter foils and similar, please contact our technical department or carry out preliminary tests.

Mineral substrates such as concrete, plaster, masonry, gypsum board, cellular concrete as well as untreated wood have to be primed with OTTO Primer 1105. This is essential. The use of this primer as barrier does not only improve the adhesion, but it is also a barrier to alkaline. Without a barrier the alkaline in combination with moisture can (amongst others) damage the back side of the mirror.

When bonding mirrors do not apply the adhesive point-shaped or full-surface, but in vertical stripes (beads). The length of a bead should not exceed 200 mm. 3 beads are to be applied per m² in a way, that after pressing on the mirror the width of the bead does not exceed 10 mm and the space between the beads is of at least 200 mm. This will make the necessary air circulation for the vulcanization possible. For an ideal loading capacity an adhesion surface of minimum 10 cm² / kg of the mirror's weight is necessary.

In order to avoid the confinement of the splitting product, a minimum space of 1,6 mm between mirror and substrate has to be kept mandatory. This space can be avoided most purposefully by sticking spacers onto the mirror. The minimum space specified serves the outbreathing of the splitting product. It does however not overrule the minimum distances for ventilation given by the Institute of Glass Manufacturing in Hadamar.

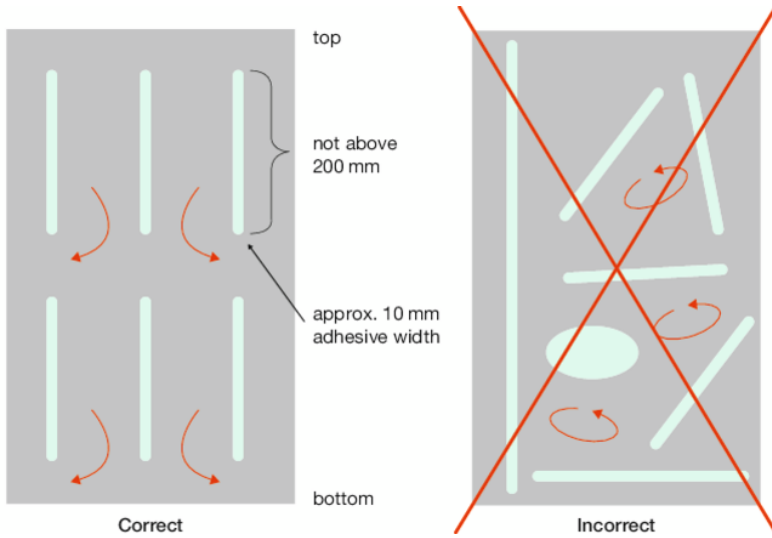
For bonding acrylic glass mirrors, we recommend an adhesion test on the mirror laque layer. Just like with glass mirrors, unimpeded removal of the fission products is to be ensured.

The mechanical strength, necessary for the bonding, will be achieved after approx. 8 hours (+23 °C, 50 % RH). Until this point a mechanical fixation is necessary. This can be done with removable mechanical fixations, e.g. blocks of wood, wedges or single sided adhesive tapes used at the front of the mirror or with double sided adhesive tapes applied to the back of the mirror.

OTTOSEAL® S 70 and OTTOSEAL® S 80 are recommended for sealing the edges of a mirror adjacent to natural stone.

OTTOSEAL® S 120 and OTTOSEAL® S 125 is recommended for sealing the edges of a mirror adjacent to other materials such as ceramic, metal, glass etc.

Please note that the sealing must be effected after has completely cured and the splitting product has escaped. This takes approx. 3 days. An immediate sealing is possible, if one edge of the mirror stays open in order to make the escape of the splitting product possible. On mirrors without a back out of glass only the vertical edges should be sealed to avoid a damage of the mirror coating due to formation of condensation.



The maximum ambient temperature of 60 °C must not be exceeded while curing.
 Component A does not react with air humidity and is stable under normal conditions (23 °C, 50 % RH).
 Component B is sensitive to moisture and therefore must be protected from moisture.
 In order to achieve optimal adhesion and good mechanical characteristics, the entrapment of air in the joint must be avoided.
 Processing/smoothing: The adhesive/sealant has to be smoothed within pot life in order to ensure close contact with joint edges/substrates. OTTO Smoothing Agent shall not be used.
 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

490 ml side-by-side plastic cartridge	
● fair grey	S610-2080-43-C5200
● black	S610-2030-43-C04
Pieces per packaging unit	9
Pieces per pallet	540

1 OTTO static mixing nozzle MFQX 10-24T is supplied with each cartridge
 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.