# OTTOCOLL® S 645





# The premium 2-component silicone for structural glazing

Neutral, condensation-curing 2-component silicone adhesive and sealant based on alkoxy

For indoor and outdoor application

S 645



### **Characteristics**

- > Excellent weathering, ageing and UV-resistance
- > High resistance to notches and tearing Resistant to high mechanical stresses
- > Available in certain special colours by request
- > Very good adhesion on many substrates Ensures a durable and secure bond
- > High elongation stress value High stability of the adhesion
- > Fast curing even in thick layers Fast further processing
- > Low odour No odour nuisance
- > Does not cause corrosion on unprotected metal surfaces

### Fields of application

- > Bonding and sealing of glass elements (e.g. partition walls, all-glass corners, glass parapets)
- > Bonding of structural glazing units
- > For adhesive bonding subject to building supervision approval
- > Elastic bonding and sealing of various materials, e. g. glass, wood, metal and plastics

### Standards and tests

- > Tested according to ETAG 002
- > European Technical Assessment ETA-19/0692
- > CE marked
- > Tested fire behaviour in accordance with EN 13501: class E
- > Certified according to SNJF VEC, no.: 4763

### **Technical properties**

### Single components:

### Component A

Colour	C01 white
Viscosity at 23 °C	pasty, stable
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,36
Shelf life at 23 °C/50 % RH [months]	121

1) from production

## Component B

**OTTOCURE** 

S-CA 2375

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Technical datasheet OTTOCOLL® S 645

Colour	C04 black, coloured	
Viscosity at 23 °C	pasty, stable	
Density at 23 °C according to ISO 1183-1, black [g/cm³]	1,06	
Density at 23 °C according to ISO 1183-1, coloured [g/cm³] 1,32		
Shelf life at 23 °C/50 % RH [months]	12 <sup>1</sup>	

<sup>1)</sup> from production

# Mixed components With OTTOCURE

	S-CA 2375
Colour	C04 black, coloured
Viscosity at 23 °C	pasty, stable
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,35
Pot life at 23 °C/50 % RH [minutes]	~ 40 - 70
Shore-A-hardness after 4 hours	≥ 10
Shore-A-hardness after 24 hours	> 30

#### Vulcanisate:

Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,35
Shore-A-hardness according to ISO 868	~ 50
Temperature resistance from/to [°C]	- 40 / + 150 <sup>1</sup>
Tensile strength according to ISO 37, type 3 [N/mm²]	~ 2,5
Tensile expansion according to ISO 37, type 3 [%]	~ 200
Stress expansion modulus at 12,5 % according to ISO 8339 [N/mm²]	~ 0,35
Permissible movement capability [%]	25

<sup>1)</sup> After complete curing a temperature resistance up to approx. +150°C can be reached. Constant use under high temperatures and /or high humidity (RH > 60%) may change the properties of the material or lead to an interaction with neighbouring materials.

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.

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

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 in order to achieve a resilient bonding. Please consult our technical department.

### 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**

Processing temperature from/to [°C]	+5 / +40		
Mixing ratio according to weight (base A : curing agent B)	12,8 : 1 <sup>1</sup>		
Mixing ratio according to volume (base A: curing agent B) 10:1			
Maximum permissible deviation from the mixing ratio [%]	± 10		
Recommended following plate pressure, component A [bar]	2 - 3		
Recommended following plate pressure, component B [bar]	< 1,5		

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### Maximum temperature during curing [°C]

+60

1) with coloured B component 10.3:1

Avoid entrapment of air during mixing. Therefore we recommend to use a mixing equipment.

If processing with the help of a mixing and dosing system, please consult the application technology department.

Please note that when using static mixing nozzles, the time until the mixer is rinsed is considerably shorter than the pot life.

For seals in the mixing and dosing system that are in direct contact with the adhesive/sealant, we recommend using (plasticiser-free) EPDM seals or even more resistant FFKM seals. If other sealing materials are used, please consult our Application Technology department.

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. Only remove dry, do not use smoothing agents.

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  $+15 \degree$ C up to  $+25 \degree$ C. If the products are stored and / or transported at higher temperatures / air humidity for longer periods (some weeks), a diminuition of durability or a change of material characteristics may arise.

To make sure the mixing is correct the user has to carry out accompanying quality checks during application. For the necessary tests and other general conditions to be observed, please refer to the document "Application Instructions OTTOCOLL® S 645". This is available for download on the homepage.

If the adhesive has to carry static and/or dynamic loads in the planned application, please consult the application technology department.

# **Packaging**

	490 ml side-by- side plastic cartridge	20 I hobbock (component A)	200 I Drum (component A)	20 I hobbock (component B)
black	S645-2375-43-C0	4 on request	on request	on request
Pieces per packaging unit	9	1	1	1
Pieces per pallet	540	16	2	16

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

Other packagings and colours on request

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.

### 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.