

Novasil® S 806

The 2-component alkoxy high temperature silicone

S 806

Characteristics

- ▶ Neutral, condensation-curing 2-component silicone adhesive and sealant based on alkoxy
- ▶ Fast curing even in thick layers
- ▶ Reduced cycle times - due to the fast curing bonded parts can be further processed extremely soon
- ▶ Excellent temperature resistance
- ▶ High adhesion strength
- ▶ Excellent adhesion on many substrates, partly in combination with primer
- ▶ Low shrinkage during vulcanization
- ▶ Non-corrosive
- ▶ Low odour



Fields of application

Household appliances industry:

- ▶ Adhesion of baking oven-inside pane
- ▶ Bonding of angle brackets, panels, oven panes, door handles
- ▶ Application of elastic sealings, e. g. on the oven door

General Industry:

- ▶ Elastic bonding and sealing for industrial purposes with a permanent temperature of up to + 250 °C

Standards and tests

- ▶ The product was successfully tested according to the requirements of volatility and extraction test of Bundesamtes für Risikobewertung (BfR), chapter XV (silicones) and the US Food and Drug Administration (FDA), 21 CFR 177.2600. Mandatory precondition for an application according to these regulations is a suitable pretreatment of the vulcanizate in order to remove extractable and volatile residues.

Technical properties

Single components:

Component A

Colour	black
Viscosity at 23 °C	pasty
Density at 23 °C according to ISO 1183-1 [g/cm ³]	~ 1,14
Shelf life at 23 °C/50 % RH for pail [months]	6 ¹
Shelf life at 23°C/50% RH for 200 l drum [months]	9 ¹
Shelf life at 23 °C/50 % RH for side-by-side cartridge [months]	9 ¹

1) from production

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SEALING & BONDING

Component B OTTOCURE S-CA 2160

Colour	black
Viscosity at 23 °C	pasty
Density at 23 °C according to ISO 1183-1 [g/cm ³]	~ 1,23
Shelf life at 23 °C/50 % RH [months]	6 ¹
Shelf life at 23 °C/50 % RH for side-by-side cartridge [months]	9 ¹

1) from production

Mixed components with OTTOCURE S-CA 2160

Colour	black
Viscosity at 23 °C	pasty
Pot life at 23 °C/50 % RH [minutes]	~ 10
Shore-A-hardness after 1 hour	~ 15
Shore-A-hardness after 2 hours	~ 25
Shore-A-hardness after 24 hours	~ 35

Vulcanisate:

Shore-A-hardness according to ISO 868	~ 40
Tensile strength according to ISO 37, type 3 [N/mm ²]	~ 2,5
Tensile expansion according to ISO 37, type 3 [%]	~ 260
Temperature resistance from/to [°C]	-40 / +250

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.

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.

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

Constructional details of the adhesion must be agreed upon by our technical department.

During curing small amounts of alcohol are released.

Ensure good ventilation during application and curing.

Silicones are usually serviceable over a wide temperature range for long periods of time. The interaction of factors such as the frequency of temperature changes, the heating rate, the air intake, etc. causes a complex time- and temperature-dependent thermal behaviour. Therefore, the behaviour at both the lower and upper end of the temperature spectrum (specified in the technical data) should be tested close to the application in order to check the individual suitability in the application.

Application information

Processing temperature from/to [°C]	+10 / +25 ¹
Mixing ratio according to weight (base A : curing agent B)	9,2 : 1
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
Maximum temperature during curing [°C]	+60

1) temporarily up to + 30 °C

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

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 B is sensitive to moisture and therefore must be protected from moisture.

Component A does not react with air humidity and is stable under normal conditions (23 °C, 50 % RH).

In order to achieve optimal adhesion and good mechanical characteristics, the entrapment of air in the joint must be avoided.

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.

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.

Packaging

Packagings and colours on request

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.