

# Novasil® S 803

The 1-component sealing silicone with UV indicator

S 803



## Characteristics

- ▶ Neutral curing 1-component potting silicone based on alkoxy
- ▶ Self-levelling
- ▶ Cures at room temperature
- ▶ Excellent adhesion on many substrates, partly in combination with primer
- ▶ With UV-indicator (for the quality control/inspection of the application via UV light)

## Fields of application

### Lighting and electronics industry:

- ▶ Potting and coating of electronic and electric components

## Standards and tests

- ▶ UL FLAME CLASSIFICATION 94 HB, RTI 105°C, File No. E176319 (Layer thickness 1.5 mm - 3.0 mm)
- ▶ UL FLAME CLASSIFICATION 94 V-1, Conformal Coating auf FR4 (Layer thickness <0.3 mm)
- ▶ UL Dielectric Strength, File No. E176319
- ▶ UL Volume Resistivity, File No. E176319



## Technical properties

Skin-forming time at 23 °C/50 % RH [minutes]	~ 15
Curing in 24 hours at 23 °C/50 % RH [mm]	~ 2
Processing temperature from/to [°C]	+ 5 / + 40
Viscosity Brookfield [mPas]	~ 25000
Density at 23 °C according to ISO 1183-1 [g/cm <sup>3</sup> ]	~ 1,0
Shore-A-hardness according to ISO 868	~ 15
Stress expansion modulus at 100 % according to ISO 37, type 3 [N/mm <sup>2</sup> ]	~ 0,3
Tensile expansion according to ISO 37, type 3 [%]	~ 250
Tensile strength according to ISO 37, type 3 [N/mm <sup>2</sup> ]	~ 0,7
Temperature resistance from/to [°C]	- 40 / + 200 <sup>1</sup>
Dielectric strength ED according to DIN EN 60243-1 [kV/mm]	17
Volume resistance $\rho$ according to IEC 62631-3-1:2016 [ $\Omega$ *cm]	1 * 10 <sup>12</sup>
Track resistance (CTI-value) according to UL 746 A (ASTM D3638) [V]	600
Shelf life at 23 °C/50 % RH for cartridge/foil bag [months]	12 <sup>2</sup>
Shelf life at 23 °C/50 % RH for pail/drum [months]	12 <sup>2</sup>

1) After complete curing a temperature resistance up to approx. +200°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.

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.

The adherent surfaces have to be clean, free from dust and grease as well as 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.

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

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.

Contact with chemicals and when used in light protected applications can lead to a slight yellowing of the cured product. A possible change in colour does not necessarily influence the functionality.

## Application information

Due to the many possible influences during and after application, the customer always has to carry out trials first.

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

<b>310 ml cartridge</b>	
<input type="radio"/> transparent	S803-04-C00
<b>Pieces per packaging unit</b>	<b>20</b>
<b>Pieces per pallet</b>	<b>1200</b>

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