The low-viscous 2-component silicone sealing compound

Novasil®
S 824

Technical Datasheet

Characteristics:

- 2-component silicone potting compound
- Based on a neutral, condensation curing system
- Cures at room temperature
- Releases alcohol as splitting product during curing.
- Non-corrosive
- Excellent flowability
- Electrically non-conductive
- Very broad adhesion spectrum
- Fast application in production

Fields of application:

Renewable energies:

- Potting of junction boxes in the PV-industry

Lighting and electronics industry:

- Potting of complex, electronic components with undercuts
- Waterproof sealing of measuring units
- Potting/coating of electrical circuit boards and housings
- Potting of sensors

Standards and tests:

- According to UL FLAME CLASSIFICATION 94 HB

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.
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.

Technical properties:

Single components:
Component A

Colour	C04 black
Viscosity at 23 °C [mPas]	~ 2000
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,02
Shelf life at 23 °C/50 % RH [months]	9 (1)

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1) from date of manufacture

OTTOCURE S-CA 2205

Colour	C00 transparent
Viscosity at 23 °C [mPas]	~ 80
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 0,97
Mixing ratio according to weight (base A : curing agent B)	9,5 : 1
Mixing ratio according to volume (base A : curing agent B)	10 : 1
Shelf life at 23 °C/50 % RH [months]	9 (1)

1) from date of manufacture

OTTOCURE S-CA 2410

Colour	C00 transparent
Viscosity at 23 °C [mPas]	~ 180
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 0,97
Mixing ratio according to weight (base A : curing agent B)	9,5 : 1
Mixing ratio according to volume (base A : curing agent B)	10 : 1
Shelf life at 23 °C/50 % RH [months]	6 (1)

1) from date of manufacture

Unvulcanised compound:
with OTTOCURE S-CA 2205

Colour	C04 black
Viscosity at 23 °C [mPas]	~ 2000
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,0
Processing temperature from/to [°C]	+ 10 / + 25 (1)
Shore-A-hardness after 4 hours	≥ 2
Shore-A-hardness after 24 hours	≥ 15
Pot life at 23 °C/50 % RH [minutes]	~ 30

1) temporarily up to + 30 °C

with OTTOCURE S-CA 2410

Colour	C04 black
Viscosity at 23 °C [mPas]	~ 2000
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,0
Processing temperature from/to [°C]	+ 10 / + 25 (1)
Shore-A-hardness after 4 hours	≥ 10
Shore-A-hardness after 24 hours	≥ 17
Pot life at 23 °C/50 % RH [minutes]	~ 5 - 15

1) temporarily up to + 30 °C

Vulcanisate:

Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,0
Shore-A-hardness according to ISO 868	~ 20
Temperature resistance from/to [°C]	- 40 / + 150 (1)
Tensile strength according to ISO 37, S3A [N/mm²]	~ 0,8 - 1,2
Tensile expansion according to ISO 37, S3A [%]	~ 150 - 200
Dielectric strength ED according to DIN EN 60243-1 [kV/mm]	~ 18
Volume resistance ρ according to IEC 62631-3-1:2016 [Ω*cm]	1 * 10^16

1) After complete curing a temperature resistance up to approx. +150°C can be reached. This can lead to a slight yellowing . 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.

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

Pretreatment:

All adherent surfaces must be clean and any contaminant such as release agents, preserving agents, grease, oil, dust, water, old adhesives or sealants and other substances which could affect adhesion, must be removed. Cleaning of non-porous substrates: Apply OTTO Cleaner T (airing time approx. 1 minute) using a clean, lint-free cotton 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.

Application information:

Maximum tolerance of mixing ratio: The mixing ratios may vary by a maximum of +/- 10 % in order to have an impact on the curing time.
Avoid entrapment of air during mixing. Therefore we recommend to use a mixing equipment.
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.
Advice for the lay out design of the mixing and dosing installation: we advise the use of stainless steel storage containers and EPDM o-ring sealing. To prevent the diffusion of humidity please use hoses with Teflon coating inside. If you decide to use different sealing materials, please contact the Application Engineering department.
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 diminuition of durability or a change of material characteristics may arise.

Packaging:

Packagings and other colours on request.

Safety precautions:

Please observe the material safety data sheet.
After curing the product is completely odourless.

Disposal:

Information about disposal: Please refer to the material safety data sheet.

Warranty information:

All information in this publication is based on our current technical knowledge and experience. However, since conditions and methods of use and application of our products are beyond our control, we suggest that you test the product before final use. Information given in this technical data sheet and explanations of OTTO-CHEMIE in connection with this technical data sheet (e.g. service description, reference to DIN regulations etc.) is not to be seen as a warranty. Warranties require a separate written declaration of OTTO-CHEMIE to prove their validity. The characteristics stated in this data sheet define the characteristics of the article broadly and concludingly. Suggestions of use are not to be taken as confirmation of the appropriateness for the recommended intended use. We reserve the right to alter the product, adjusting it according to technical progress and new developments. We are at your disposal both for inquiries as well as specific application problems. If a governmental approval or clearance is necessary for the application of our products, the user is responsible for the obtainment of such. Our recommendations do not excuse the user from the obligation to take into consideration the possibility of infringement of third parties' rights and - if necessary - resolving it. For the rest our general terms and conditions apply, in particular regarding a possible liability for defects. You can find our general terms and conditions on our homepage: http://www.otto-chemie.de/en/terms-and-conditions

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