Novasil®
S 151

Technical Datasheet

Characteristics:

- 2-component silicone potting compound
- Based on a neutral, condensation curing system
- Heat conductive
- Cures at room temperature
- Releases alcohol as splitting product during curing.

Fields of application:

Lighting and electronics industry:

- Potting of electronical structural units

Standards and tests:

- According to the requirements of UL-VO

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.
After curing the product is completely odourless, physiologically harmless and unmodified.
The colour shade can be influenced by temperature and chemicals. These possible changes of the colour shades have no influence on the protective properties of the product.

Technical properties:

Single components:
Component A

Colour	white C01
Viscosity at 23 °C [mPas]	~ 150000
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,67
Shelf life at 23 °C/50 % RH [months]	6

Component B
OTTOCURE S-CA 2325

Colour	transparent C00
Viscosity at 23 °C [mPas]	~ 180
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 0,98
Mixing ratio according to weight (base A : curing agent B)	17 : 1
Mixing ratio according to volume (base A : curing agent B)	10 : 1
Shelf life at 23 °C/50 % RH [months]	6

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OTTOCURE S-CA 2420

Colour	transparent C00
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)	17 : 1
Mixing ratio according to volume (base A : curing agent B)	10 : 1
Shelf life at 23 °C/50 % RH [months]	6

Unvulcanised compound:
with OTTOCURE S-CA2325

Colour	white
Viscosity at 23 °C [mPas]	~ 30000
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,59
Processing temperature from/to [°C]	+10 / +25 (1)
Shore-A-hardness after 2 hours	~ 30
Shore-A-hardness after 4 hours	~ 45
Shore-A-hardness after 24 hours	~ 75
Pot life at 23 °C/50 % RH [minutes]	~ 20

1) temporarily up to + 30 °C

with OTTOCURE S-CA 2420

Colour	white
Viscosity at 23 °C [mPas]	~ 30000
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,59
Processing temperature from/to [°C]	+10 / +25 (1)
Shore-A-hardness after 6 hours	~ 15
Shore-A-hardness after 24 hours	~ 60
Pot life at 23 °C/50 % RH [minutes]	~ 120

1) temporarily up to + 30 °C

Vulcanisate:

Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,63
Shore-A-hardness according to ISO 868	~ 85
Temperature resistance from/to [°C]	- 40 / + 150
Thermal conductivity λ [W/mK]	~ 0,8
Tensile strength according to ISO 37, S3A [N/mm²]	~ 2,4
Tensile expansion according to ISO 37, S3A [%]	~ 50
Stress expansion modulus at 15 % according to ISO 37, S3A [N/mm²]	~ 0,7
Specific inductive capacity according to DIN VDE 0303 T 4 test frequency 40 kHz	4,4
Volume resistance p according to DIN IEC 93 [Ω*cm]	9,2 * 10^12
Dielectric strength according to DIN IEC-243-2 [kV/mm]	17

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.

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.
As the filling agents in component A can settle down (sedimentation) during storage , it must be stirred up homogeneously in the original packaging prior to mixing it with component B or prior to filling it into the storage containers of a mixing and dosing installation.

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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.
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 on request

Safety precautions:

Please observe the material safety data sheet.

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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