

Novasil®

S 53

## Technical Datasheet

## Characteristics:

- Neutral-curing 1-component silicone sealant and adhesive, MEKO-free
- Cures at room temperature
- Excellent adhesion on many substrates, partly in combination with primer
- Extraordinary long-term temperature resistance up to +265 °C
- Especially matched viscosity

## Fields of application:

## Domestic appliances industry :

- Adhesion of baking oven-inside pane
- Bonding of fixing brackets, mouldings, oven glass doors, door handles
- Application of elastic sealings, e. g. on the oven door

## Heating, ventilation and plant construction:

- Sealing of moulded boilers and smoke gas cabinets

## General Industry:

- Elastic bonding and sealing in the motor area
- Elastic bonding and sealing for industrial purposes with a permanent temperature of up to + 265 °C

## Standards and tests:

- Licensed according to UL FLAME CLASSIFICATION HB - File no. E176319

## 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 the curing process of the material reaction products of the crosslinker are released. Ensure good ventilation during application.

The required vulcanization time prolongs with increasing thickness of the silicone layer. One-component silicones must not be used for full-surface bonding applications unless special constructional prerequisites are met. If one-component silicones are to be used for thickness layers of more than 15 mm please contact our technical department beforehand.

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

Repair by adhesion on electrical devices are to be carried out by service personell of the manufacturer only.

## Technical properties:

Skin-forming time at 23 °C/50 % RH [minutes]	~ 10
Curing in 24 hours at 23 °C/50 % RH [mm]	~ 2 - 3
processable [°C]	+ 5 / + 40
Viscosity at 23 °C	pasty, stable
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,0
Stress expansion modulus at 100 % according to ISO 37, S3A [N/mm²]	~ 0,7
Tensile expansion according to ISO 37, S3A [%]	~ 400

Tensile strength according to ISO 37, S3A [N/mm <sup>2</sup> ]	~ 1,7
Temperature resistance from/to [°C]	- 40 / + 265
Shrinkage of volume according to ISO 10563 [%]	~ 3,5
Shelf life at 23 °C/50 % RH for cartridge/foil bag [months]	12 (1)
Shelf life at 23 °C/50 % RH for pail/drum [months]	9 (1)

1) from date of manufacture

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, should 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.

**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 packaging 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:**

	310 ml cartridge
anthracite	S53-04-C67
<b>Packaging unit</b>	<b>20</b>
<b>Pieces per pallet</b>	<b>1200</b>

Further delivery forms available on request

**Safety precautions:**

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

**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 conclusively. 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>