Novasil® S 56

Technical Datasheet

Characteristics:

- Neutral-curing 1-component silicone sealant and adhesive, MEKO-free
- · Excellent weathering, ageing and UV-resistance
- Very high mechanical strength, resistance to notches, tension and tearing
- · High adhesive power
- Excellent adhesion on many substrates, partly in combination with primer
- Very good resistance during Damp Heat Test (1,000 h +85 °C / 85 % RH)
- Excellent temperature resistance from -40 °C up to +250 °C (1)
- Non-corrosive
- · Resistant to motor oil and lubricating oil

Fields of application:

Renewable energies:

- Elastic bonding of frames to PV-modules
- Adhesion and sealing of junction boxes

Domestic appliances industry:

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

Heating, ventilation and plant construction:

- Sealing of moulded boilers and smoke gas cabinets
- Bonding of glass doors in stoves

General Industry:

- Elastic bonding and sealing for industrial purposes with a permanent temperature of up to + 250 °C
- Suitable for Formed In Place Gaskets (FIPG) oilsump front wall cover, thermostat housings, valve covers, axle covers etc.

Standards and tests:

UL 94 Flame Classification HB, RTI 105 °C, File No. E 176319

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 and curing.

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.

Technical Datasheet Novasil® S 56 Page 1 version: 21 / 22gb (06.07.2021, 12:21 h)





Avoid contact with materials which contain bitumen and which release solvents, e. g. butyl, EPDM, neoprene, insulating- and bituminous paint.

Not suitable for the potting of junction boxes of pv-modules. We generally advise against use in closed housings

Upon processing out of jerry cans or drums with the help of a dosing equipment it is to be considered, that the product contains abrasive fillers. This has to be observed when selectinh the valves, conductions and pumps. Our technical department can give further information regarding this subject. Repair by adhesion on electrical devices are to be carried out by service personell of the manufacturer

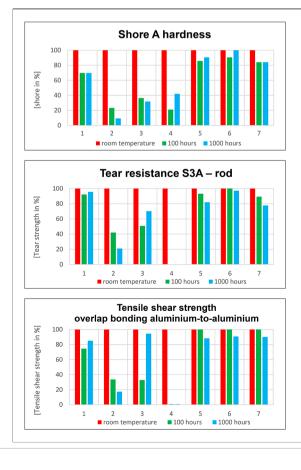
Technical properties:

Skin-forming time at 23 °C/50 % RH [minutes]	~ 5
Curing in 24 hours at 23 °C/50 % RH [mm]	~ 2 - 3
Processing temperature from/to [°C]	+ 5 / + 40
Viscosity at 23 °C	pasty, stable
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,1
Shore-A-hardness according to ISO 868	~ 40
Stress expansion modulus at 100 % according to ISO 37, S3A [N/mm²]] ~ 0,95
Tensile expansion according to ISO 37, S3A [%]	~ 350
Tensile strength according to ISO 37, S3A [N/mm²]	~ 2,9
Temperature resistance from/to [°C]	- 40 / + 250 (1)
Temperature resistance only temporarily (up to 2 hours if loaded daily) [°C] + 275 (1)
Shrinkage of volume according to ISO 10563 [%]	~ 4
Dielectric strength ED according to DIN EN 60243 [kV/mm]	≥ 15
Volume resistance p according to DIN IEC 93 [Ω*cm]	10 ^ 14
Shelf life at 23 °C/50 % RH for cartridge/foil bag [months]	12 (2)
Shelf life at 23 °C/50 % RH for pail/drum [months]	12 (2)

- 1) Tested with Novasil S 56 black
- 2) from date of manufacture

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

Media resistance:



Medium 1: Engine oil at +105°C Medium 2: Engine oil at +150°C Medium 3: Water/glycol at +105°C Medium 4: Water/glycol at +150°C

Medium 5: Cold degreasing agent at room temperature

Medium 6: Brake fluid at room temperature Medium 7: Drilling coolant at room temperature

Technical Datasheet Novasil® S 56





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.

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 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:

	310 ml cartridge
black	S56-04-C04
stainless steel	S56-04-C197
Packaging unit	20
Pieces per pallet	1200

Further delivery forms available 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

