The neutral fire protection silicone

**OTTOSEAL® S 94**

### Technical Datasheet

**Characteristics:**
- Neutral-curing 1-component silicone sealant
- Flame resistant
- Good compatibility with paints according to DIN 52452 (not paintable)
- Non-corrosive
- Excellent weathering, ageing and UV-resistance

**Fields of application:**
- Sealing of structural components, that require an increased fire-behaviour (e. g. fire-resistant building components and fire-resistant glazing)
- Suitable for sealing glass elements made of laminated and tempered glass. Please contact our technical department for further information.

**Standards and tests:**
- General German appraisal certificate P-HFM 004069
- Tested and monitored according to DIN 4102-B1 - flame resistant between solid mineral constructional elements (Institute for Wood Research, Technical University Munich, Germany)
- Tested according to DIN 25415, part 1 - very good decontamination properties of the sealant surface (German Materials Research and Testing Agency, 12200 Berlin, Germany)
- Conform to LEED® IEQ-credits 4.1 (Indoor Environmental Quality) adhesives and sealants
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**Important information:**

Before applying the adhesive / sealant the user has to ensure that the materials in the area of contact (solid, liquid and gaseous) are compatible with the adhesive / sealant and do not damage or alter (e. g. discolor) them. As for the materials that will be used at a later stage in the surrounding area of the adhesive / sealant the user has to clarify beforehand that the substances of content or evaporations do not lead to an impairment or alteration (e. g. discoloration) of the adhesive / sealant. In case of doubt the user should consult the respective manufacturer of the material.

The building material class B1 will be accomplished after the sealant is completely cured. In contrast to many other flame resistant plastics the sealant contains fireproofing agents that do not release harmful substances in case of fire.

The building material class B1 is the pre-condition for fire-resistant classes, such as F30/F60/F90 for building components. Sealants are not classified according to fire-resistant classes but according to building material classes.

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

After curing the product is completely odourless, physiologically harmless and unmodified.

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

**Technical properties:**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin-forming time at 23 °C / 50 % RAH</td>
<td>approx. 10 minutes</td>
</tr>
<tr>
<td>Curing in 24 hours at 23 °C / 50 % RAH</td>
<td>approx. 2 mm</td>
</tr>
<tr>
<td>Processing temperature</td>
<td>+5 °C up to approx. +35 °C</td>
</tr>
<tr>
<td>Viscosity (23 °C)</td>
<td>pasteus, standvast</td>
</tr>
<tr>
<td>Density at 23 °C</td>
<td>approx. 1.27 g/cm³</td>
</tr>
</tbody>
</table>

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Hermann Otto GmbH · Krankenhausstraße 14 · D-83413 Fridolfing
Tel.: +49 8684-908-0 · Fax: +49 8684-12-60
e-mail: info@otto-chemie.de · Internet: www.otto-chemie.de
Shore-A-hardness (DIN 53 505) approx. 29
Permissible movement capability 25 %
Stress expansion modulus at 100 % (DIN 53 504, S3A) approx. 0,50 N/mm2
Breaking expansion (DIN 53 504, S3A) approx. 600 %
Tensile strength (DIN 53 504, S3A) approx. 2.0 N/mm²
Temperature resistance -40 °C up to +150 °C
Shelf life at 23 °C / 50 % RAH for cartridge / foil bag 12 months

These data are not suitable for the issuing specifications. Please contact OTT O - CHEMIE before issuing specifications.

Pretreatment:
The adherent surfaces have to be clean, free from fat, dry and sustainable. 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. Cleaning of non-porous substrates: Apply OTT Cleaner T (airing time approx. 1 minute) using a clean, lint-free cotton cloth. Cleaning porous substrates: Clean surfaces with steel-wire brush e. g. or a grinding disk to remove loose particles.

Primer Table:
The OTT Primer 1215, 1217 and 1218 are subject to the obligation to inform and to keep records according to the Regulation of Chemical Interdiction (amongst others prohibition of self service) since 01.11.2005. Please observe the Technical Data Sheets (www.otto-chemie.de).
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 according to the recommendations of our technical department (e. g. +/-OTT Primer 1216) in order to achieve a resilient bonding.

<table>
<thead>
<tr>
<th>Material</th>
<th>1215 / 1216</th>
<th>Test/pilot test advised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Aluminium anodized</td>
<td>1101 / 1216</td>
<td></td>
</tr>
<tr>
<td>Aluminium powder-coated</td>
<td>1101 / T</td>
<td></td>
</tr>
<tr>
<td>Aluminium powder-coated (contains teflon)</td>
<td>T</td>
<td></td>
</tr>
<tr>
<td>Concrete</td>
<td>1105 / 1215</td>
<td></td>
</tr>
<tr>
<td>Stainless steel</td>
<td>1101 / 1216</td>
<td></td>
</tr>
<tr>
<td>Fibre cement</td>
<td>1105 / 1215</td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Ceramic, glazed</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Ceramics, unglazed</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>1101 / 1216 (1)</td>
<td></td>
</tr>
<tr>
<td>Natural stone / marble</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Plaster</td>
<td>1105 / 1215</td>
<td></td>
</tr>
<tr>
<td>Zinc, galvanised iron</td>
<td>1216</td>
<td></td>
</tr>
</tbody>
</table>
+ = good adherence without primer
- = not suitable
T= Test/pilot test advised

1) The reaction of neutral silicone with non-ferrous metalls, such as copper, brass, etc. is possible. Upon curing un-blocked air admission is necessary.

Application information:
Because of the variety of possible influences while processing and applicating customer tests are required. Please observe the recommended shelf life which is printed on the packaging.
We recommend to store our products in unopened original packagings dry (< 60 % RAH) 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:
Please see the packagings available from stock in our current General Catalogue for Building Products.
<table>
<thead>
<tr>
<th>Trading unit/Container</th>
<th>Packaging unit</th>
<th>Pieces per pallet</th>
</tr>
</thead>
<tbody>
<tr>
<td>310 ml cartridge</td>
<td>20</td>
<td>1200</td>
</tr>
</tbody>
</table>

**Colours:**
- C02 grey
- C01 white
- C00 transparent
- C04 black

**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 experiences. However, since conditions and methods of use and application of our products are beyond our control, we suggest you to 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. If you happen to not have our general terms and conditions at hand, we will gladly send them to you upon request. You can also find them on our homepage: [http://www.otto-chemie.de/englisch/unternehmen/agb/AGB-Englisch_04-05.pdf](http://www.otto-chemie.de/englisch/unternehmen/agb/AGB-Englisch_04-05.pdf)