Sikasil® SG-500 CN

2-COMPONENT SILICONE STRUCTURAL GLAZING ADHESIVE, COMPLYING ASTM AND GB STANDARDS

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

<table>
<thead>
<tr>
<th>Properties</th>
<th>Sikasil® SG-500 CN (A)</th>
<th>Sikasil® SG-500 CN (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical base</td>
<td>2-component silicone</td>
<td></td>
</tr>
<tr>
<td>Colour (CQP001-1)</td>
<td>mixed</td>
<td>mixed</td>
</tr>
<tr>
<td></td>
<td>White, light grey</td>
<td>Black, dark grey</td>
</tr>
<tr>
<td></td>
<td>Black / Grey S6</td>
<td></td>
</tr>
<tr>
<td>Cure mechanism</td>
<td>Polycondensation</td>
<td></td>
</tr>
<tr>
<td>Cure type</td>
<td>Neutral</td>
<td></td>
</tr>
<tr>
<td>Density (uncured)</td>
<td>mixed</td>
<td>mixed</td>
</tr>
<tr>
<td></td>
<td>1.4 k/l</td>
<td>1.1 kg/l</td>
</tr>
<tr>
<td></td>
<td>1.4 kg/l</td>
<td></td>
</tr>
<tr>
<td>Mixing ratio</td>
<td>A:B by volume</td>
<td>10 : 1</td>
</tr>
<tr>
<td></td>
<td>A:B by weight</td>
<td>13 : 1</td>
</tr>
<tr>
<td>Viscosity (CQP029-6)</td>
<td>1 200 Pa·s</td>
<td>300 Pa·s</td>
</tr>
<tr>
<td>Consistency</td>
<td>Paste</td>
<td></td>
</tr>
<tr>
<td>Application temp.</td>
<td>ambient</td>
<td>5 – 40 °C</td>
</tr>
<tr>
<td>Snap time (CQP554-1)</td>
<td>60 minutes A</td>
<td>270 minutes A</td>
</tr>
<tr>
<td>Tack free time (CQP019-3)</td>
<td>60 minutes A</td>
<td></td>
</tr>
<tr>
<td>Shore A hardness (CQP023-1 / ISO 7619-1)</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Tensile strength (CQP036-1 / ISO 527)</td>
<td>1.9 MPa</td>
<td></td>
</tr>
<tr>
<td>100 % modulus (CQP036-1 / ISO 527)</td>
<td>1.0 MPa</td>
<td></td>
</tr>
<tr>
<td>Elongation at break (CQP036-1 / ISO 527)</td>
<td>290 %</td>
<td></td>
</tr>
<tr>
<td>Tear propagation resistance (CQP045-1 / ISO 34)</td>
<td>2.7 N/mm</td>
<td></td>
</tr>
<tr>
<td>Service temp. (CQP513-1)</td>
<td>-40 – 150 °C</td>
<td></td>
</tr>
<tr>
<td>Shelf life (CQP016-1)</td>
<td>15 months B</td>
<td>12 months B</td>
</tr>
</tbody>
</table>

CQP = Corporate Quality Procedure

DESCRIPTION
Sikasil® SG-500 CN is a 2-component, high-modulus, neutral-curing structural silicone adhesive. This product is designed to be used in structural glazing applications.

PRODUCT BENEFITS
- Meets requirements of ASTM C 1184, ASTM C 920 (class 25, movement capability ± 25 %) and GB 16776
- Design tensile strength for dynamic loads: $\sigma_{\text{und}} = 0.14$ MPa or 20 psi (ASTM)
- Wide adhesion range
- Excellent UV and weathering resistance
- Long term durability
- Quality product based on proven and constant quality raw materials

AREAS OF APPLICATION
Sikasil® SG-500 CN is ideal for structural glazing and similar high-demanding industrial applications. This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.
CURE MECHANISM
Sikasil® SG-500 CN starts to cure immediately after mixing the two components.
The speed of the reaction depends mainly on the temperature, i.e. the higher the tempera-
ture the faster the curing process. Heating above 50 °C could lead to bubble formation and
is therefore not allowed.
The mixer open time, i.e. the time the mater-
ial can remain in the mixer without flushing or
extrusion of product, is significantly shorter
than the snap time indicated above.

METHOD OF APPLICATION
Surface Preparation
Surfaces must be clean, dry and free from
grease, oil and dust. Surface treatment de-
pends on the specific nature of the substrates
and is crucial for a long lasting bond.

Application
The optimum temperature for substrate and
sealant is between 15 °C and 25 °C.
Before processing Sikasil® SG-500 CN both
components have to be mixed homogen-
eously and air-bubble-free in the correct ratio
as indicated with an accuracy of ±10 %. Most
commercially available metering and mixing
equipment are suitable. For advice on select-
ing and setting up a suitable pump system,
contact the System Engineering Department
of Sika Industry.
Consider that the B-component is moisture-
sensitive and must therefore only be exposed
briefly to air.

Joint must be properly dimensioned.

Basis for calculation of the necessary joint di-
mensions are the technical values of the ad-
hesive and the adjacent building materials,
the exposure of the building elements, their
construction and size as well as external
loads.

Tooling and finishing
Tooling and finishing must be carried out
within the snap time of the adhesive.
When tooling freshly applied Sikasil® SG-500
CN, press the adhesive to the joint flanks to
get a good wetting of the bonding surface. No
tooling agents must be used.

Removal
Uncured Sikasil® SG-500 CN may be removed
from tools and equipment with Sika® Re-
move-208 or an-other suitable solvent. Once
cured, the material can only be removed
mechanically.
Re-usable, usually metallic, static mixer can
be cleaned with Sika® Mixer Cleaner.
Hands and exposed skin have to be washed
immediately using hand wipes such as Sika®
Cleaner-350H cleaning towels or a suitable in-
dustrial hand cleaner and water. Do not use
solvents on skin.

Overpainting
Sikasil® SG-500 CN cannot be overpainted.

Application Limits
Recommended solution from Sika for struc-
tural glazing and window bonding are usually
compatible to each other. These solutions
consist of products such as Sikasil® SG, IG, WS
and WT series. For specific information re-
garding compatibility between various Sikasil®
products and other Sika products contact the
Technical Department of Sika Industry.
To exclude materials influencing Sikasil® SG-
500 CN, all materials such as gaskets, setting
blocks, sealants etc., in direct and indirect
contact have to be approved by Sika in ad-

Where two or more different reactive seal-
ants are used, allow the first to cure com-
pletely before applying the next one.
The above mentioned Sika process materials
may only be used in structural glazing or win-
dow bonding applications after a detailed ex-
amination and written approval of the corres-
ponding project details by Sika Industry.

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FURTHER INFORMATION
The information herein is offered for general
guidance only. Advice on specific applications
is available on request from the Technical De-
partment of Sika Industry.
Copies of the following publications are avail-
able on request:
• Safety Data Sheets
• General Guideline: Structural Silicone Glazing with Sikasil® SG
Adhesives

PACKAGING INFORMATION
Sikasil® SG-500 CN (A)
Drum  260 kg
Pail  20 kg

BASIS OF PRODUCT DATA
All technical data stated in this Product Data
Sheet are based on laboratory tests. Actual
measured data may vary due to circum-
stances beyond our control.

HEALTH AND SAFETY INFORMATION
For information and advice regarding trans-
portation, handling, storage and disposal of
chemical products, users shall refer to the ac-
tual Material Safety Data Sheets containing
physical, ecological, toxicological and other
safety-related data.

DISCLAIMER
The information, and, in particular, the re-
commendations relating to the application
and enduse of Sika products, are given in
good faith based on Sika’s current knowledge
and experience of the products when prop-
erly stored, handled and applied under nor-
mal conditions in accordance with Sika’s rec-
ommendations. In practice, the differences
in materials, substrates and actual site condi-
tions are such that no warranty in respect of
merchantability or of fitness for a particular
purpose, nor any liability arising out of any
legal relationship whatsoever, can be inferred
either from this information, or from any writ-
ten recommendations, or from any other ad-
vice offered. The user of the product must
test the product’s suitability for the intended
application and purpose. Sika reserves the
right to change the properties of its products.
The proprietary rights of third parties must be
observed. All orders are accepted subject to
our current terms of sale and delivery. Users
must always refer to the most recent issue of
the local Product Data Sheet for the product
concerned, copies of which will be supplied
on request.