BUILDING TRUST

PRODUCT DATA SHEET

SikaPower®-498/3

Highly crash toughened body shop adhesive

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base		Epoxy hybrid
Color (CQP001-1)		Gray
Solid content (CQP576-1)		99 %
Density (uncured)		1.3 kg/l
Application temperature		50 — 60 °C
Viscosity η* (DIN 54458)	flowability A4 at 45 °C	260 Pa·s
Levelling behavior G' (DIN 54458)	A2 at 45 °C	55 000 Pa
Curing conditions	standard 180 °C minimum 160 °C	30 minutes [A] 15 minutes [A]
Tensile lap-shear strength (CQP046-9 / ISO 4587)	at 10 mm/minute	30 MPa [B/C]
Dynamic resistance to cleavage (CQP505-1, CQP580-6)	at 2 m/s	40 N/mm [B/D]
T-peel strength (CQP580-2,-6 / ISO 11339)	at 100 mm/minute	18 N/mm [B/D]
Tensile strength (CQP580-5, -6 / ISO 527-2)	at 2 mm/minute	30 MPa
Elongation at break (CQP036-2 / ISO 527)	at 2 mm/minute	5 %
Young's modulus (CQP036-2 / ISO 527)	at 2 mm/minute	2 000 MPa
Glass transition temperature (CQP039-1 / ISO 6721)	peak	110 °C [F]
Shelf life		10 months [E]

CQP = Corporate Quality Procedure
[A)] substrate temperature
[B)] steel, HDG, H420, 1.2 mm
[C)] bondline thickness 0.2 mm
[D)] bondline thickness 0.3 mm
[E)] stored at temperature below 25 °C
[F)] tensile vibration, frequency 1 Hz, deformation stat./dyn. 0.3/0.05 %, heating rate 1 K/min

DESCRIPTION

SikaPower®-498/3 is a one-part, epoxy based, warm-pumped, warm-applied, heat-curing, highly crash toughened, structural adhesive.
It is designed for sheet metal assembly work in the body shop and is cured with heat, e.g. in the paint oven.

PRODUCT BENEFITS

- Highly crash toughened
- Adheres well to oily substrates
- High wash-out resistance
- Can be spot-welded
- High strength
- Suitable to join different metals
- Solvents, PVC and isocyanate free

AREAS OF APPLICATION

SikaPower®-498/3 is suitable for high structural bonding of different types of metal and specific plastic materials. It is designed for use in combination with spot-welding, riveting, clinching and other mechanical fastening techniques, and in some cases as a partial replacement for them. The bonding of oily substrates (standard anti-corrosion treatment and deep drawing oils, up to 3 g/m²) is possible because of the oil uptake during the heat curing.
This product is suitable for experienced professional users only. Test with actual substrates and conditions have to be performed ensuring adhesion and material compatibility.

CURE MECHANISM

SikaPower®-498/3 is cured by heat. The cure-rate depends on temperature and time of exposure. The most common heat sources are convection ovens. The maximum temperature must not exceed 210 °C for more than 10 minutes.

METHOD OF APPLICATION

SikaPower®-498/3 is typically applied in bead form.

All parts of the application system in contact with the product must be heated. A gradual temperature increase from 30 °C at the follower plate and pump to 50 - 60 °C at the last hose and dispenser is typically applied.

During longer breaks (e.g. overnight or weekends) suitable standby temperatures and switch-off times must be taken into account.

The time between application and curing must be as short as possible, since moisture uptake could cause formation of blisters during the heat curing process. However, moisture uptake can be prevented by precuring the assemblies or car bodies for 15 minutes at 160 °C (substrate temperature).

For advice on selecting and setting up a suitable pump system and related process parameters, contact your Sika sales representative.

FURTHER INFORMATION

The information herein is offered for general guidance only. Advice on specific applications is available on request from the Technical Department of Sika Industry.

Copies of the following publications are available on request:

- Safety Data Sheets

PACKAGING INFORMATION

Cartridge	300 ml
Pail	23 l 50 l
Drum	195 l

BASIS OF PRODUCT DATA

All technical data stated in this document are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

HEALTH AND SAFETY INFORMATION

For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

DISCLAIMER

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions 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 written recommendations, or from any other advice 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 can always refer to the most recent version of the local Product Data Sheet for the relevant product, available on our website. The information in any downloaded version is valid as of the time of download.

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