BUILDING TRUST

PRODUCT DATA SHEET

SikaPower®-4508

Heat curing paint-shop adhesive and sealant

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base		Epoxy-Polyurethane
Color (CQP001-1)		White
Density (uncured)		1.5 kg/l
Application temperature		20 – 50 °C
Curing conditions	at 180 °C	25 minutes
Tensile lap-shear strength (CQP046-9 / ISO 4587)		10 MPa [A, B, C]
Tensile strength (CQP580-5, -6 / ISO 527-2)		12 MPa [C]
Elongation at break (CQP580-5, -6 / ISO 527-2)		40 % [C]
Young's modulus (CQP036-2 / ISO 527)		300 MPa [C, D]
Shelf life		6 months [E]

CQP = Corporate Quality Procedure
[A] on 0.8 mm steel DC04
[B] adhesive layer 0.3 mm
[C] tested at 23 °C / 50 % r.h.
[D] elongation range 0.05 – 0.25 %
[E] stored at 5 – 25 °C

DESCRIPTION

SikaPower®-4508 is a 1-component, cold-applied heat-curing adhesive and sealant based on flexibilized epoxy resin. As a sealant, it is especially designed for sealing on e-coated surfaces prior to a paint or powder-coating process.

PRODUCT BENEFITS

- Adheres to e-coated and oily metal substrates
- Suitable for powder-coating processes
- Good tooling properties
- Compatible with spot welding
- Does not contain solvents or PVC

AREAS OF APPLICATION

SikaPower®-4508 can be used as an adhesive in combination with spot welding, riveting, clinching, and other mechanical fastening methods before the curing process is completed. It can bond oily substrates with a maximum of 3 g/m². Due to the variety of oils, tests with original substrates and conditions are mandatory.
SikaPower®-4508 works as well as a sealant on e-coated metals before subsquent paint processes (including powder-coating).
This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed ensuring adhesion and material compatibility.

CURE MECHANISM

SikaPower®-4508 is cured by heat. The curing depends on both temperature and elapsed time. The most suitable heat sources are convection ovens. The minimum heating temperature is 160 °C, while the maximum must not exceed 220 °C.
It is highly recommended to perform tests with original parts to ensure proper curing and function of the bonded part under original conditions.

METHOD OF APPLICATION

Application

In unipacks, SikaPower®-4508 can be applied with electric or pneumatic driven piston-operated guns. To improve application properties (extrusion force, cut-off string, etc.), it is recommended to heat up the unipack to 50 °C.
The adhesive can be applied in form of a round bead. If SikaPower®-4508 is used as an adhesive, join the parts as soon as possible.
To avoid excess moisture uptake in an uncured state, which can lead to blistering, perform the curing process within 24 hours after the application. If not possible, perform a pre-curing process.

Pre-curing

To improve wash-out resistance SikaPower®-4508 shall be pre-cured for 5 minutes at 160 °C; to reduce moisture uptake (e.g., in case of shipping before full curing) or to reach handling strength the product shall be pre-cured for 15 minutes at 160 °C.
After the pre-curing process, complete the curing with a second heating process.

Overpainting tooling finishing

For tooling purposes, use small quantities of Sika® Tooling Agent N. The joint must be dry after the tooling and prior to the curing or pre-curing process.

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

Unipack	400 ml

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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