

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 (12.5 lb/gal)
Application temperature	20 – 50 °C (68 – 122 °F)
Curing conditions	at 180 °C (356 °F) 25 minutes
Tensile lap-shear strength (CQP046-9 / ISO 4587)	10 MPa (1450 psi) ^{A, B, C}
Tensile strength (CQP580-5, -6 / ISO 527)	12 MPa (1750 psi) ^C
Elongation at break (CQP580-5, -6 / ISO 527)	40 % ^C
Young's modulus (CQP580-5, -6 / ISO 527)	300 MPa (43 ksi) ^{C, D}
Shelf life	9 months ^E

CQP = Corporate Quality Procedure
^C tested at 23 °C (73 °F) / 50 % r.h.

^A) on 0.8 mm steel DC04
^D) elongation range 0.05 – 0.25 %

^B) adhesive layer 0.3 mm
^E) stored at 5 – 25 °C (41 – 77 °F)

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 at a maximum coating weight 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 subsequent 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.

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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 (320 °F), while the maximum must not exceed 220 °C (428 °F)

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 (122 °F).

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 moisture pick-up.

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 (320 °F); 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 (320 °F).

After the pre-curing process, complete the curing with a second heating process.

Overpainting, tooling and finishing

For tooling purposes, use small quantities of Sika® Slick. 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
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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.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

LEGAL DISCLAIMER

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by contacting SIKA's Technical Service Department via email at tsmh@us.sika.com. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.** Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at <https://usa.sika.com/en/group/SikaCorp/termsandconditions.html> or by calling +1 800-933-7452.

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