

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)	12 MPa ^C
Elongation at break (CQP580-5, -6 / ISO 527)	40 % ^C
Young's modulus (CQP580-5, -6 / ISO 527)	300 MPa ^{C, D}
Shelf life	9 months ^E

CQP = Corporate Quality Procedure

C) tested at 23 °C / 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

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 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.

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 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; 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

Any information or suggestions for use concerning Sika’s products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

