

# SikaPower® -4508

## Heat Curing Paint Shop Adhesive and Sealant

### Typical Product Data

Chemical base	Epoxy polyurethane
Color <sup>1</sup> (CQP 001-1)	White
Non sag property	Good
Application temperature for manual applications	20 - 50°C (70 - 120°F)
Application temperature for pump applications	45 - 50°C (110 - 120°F)
Curing time at 180°C (355°F) substrate temperature	25 minutes
Tensile lap-shear strength <sup>2</sup> (CQP 580-1,6) with 0.8 mm steel type DC04	10 MPa (1500 psi)
Tensile strength (CQP 580-5,6 / ISO 527-2)	12 MPa (1700 psi)
Elongation at break (CQP 580-5,6 / ISO 527-2)	40%
E-modulus 0.05 – 0.25%	300 MPa (43 ksi)
Shore D hardness (CQP 574)	65
Service temperature	-40°C - 90°C (-40 - 195°F)
Shelf life stored at 5 - 25 °C (40 - 75°F)	6 months

<sup>1</sup> CQP = Corporate Quality Procedures <sup>2</sup> layer thickness 0.3 mm

### Description

SikaPower®-4508 is a one component, 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 well to most E-coated substrates and to oily metal substrates
- Suitable for powder-coating processes
- Good tooling properties
- Spot welding still possible
- Does not contain solvents or PVC

### Areas of Application

SikaPower®-4508 is designed as an adhesive / sealant. As an adhesive, it is usually used in combination with spot welding, riveting, clinching and other mechanical fastening techniques to fix the parts until the curing process is completed. Bonding of oily substrates is possible up to an oil amount of 3 g/m<sup>2</sup>. Due to the wide variety of oils, tests with original substrates and conditions are mandatory. SikaPower®-4508 is also well suited for sealing applications on E-coated metals prior to subsequent paint processes (including powder coating processes).

This product is suitable for professional experienced users only. Test with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

Industry



Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, label and Safety Data Sheet which are available on request at [tsmh@us.sika.com](mailto:tsmh@us.sika.com). Nothing contained in any Sika 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 Data Sheet, label and Safety Data Sheet prior to product use.

### Cure Mechanism

SikaPower®-4508 is cured by heat. Curing depends both on temperature and elapsed time. The most suitable heat sources are convection ovens. The minimum heating temperature is 160°C (320°F), while the maximum temperature must not exceed 220°C (430°F). It is mandatory to perform tests with original parts to ensure proper curing and function of the bonded part under original conditions. For further information contact the Technical Service Department of Sika Industry.

### Method of Application

SikaPower®-4508 can be heated up to 50°C (120°F) to decrease the viscosity and to improve the application properties such as cut-off string and wet out.

Unipacks: SikaPower®-4508 can be applied with electric or pneumatic driven piston-operated guns.

Drums: Dispensing from drums requires the use of standard hydraulic or pneumatic drive pumping equipment. For advice on selecting and setting up a suitable pump system, contact the System Engineering Department of Sika Industry.

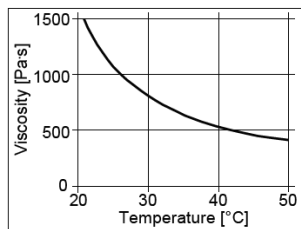


Figure 1: Viscosity SikaPower®-4508 as function of temperature

The adhesive can be applied in form of a round bead with a diameter of 1 - 10 mm. To avoid excess moisture, uptake, which can lead to blistering, parts shall be joined after the adhesive application and curing performed within 24 hours. If this should not be possible, perform as a pre-curing process as defined below.

### Pre-Curing

- For wash-out resistance pre-cure for 5 minutes at 160°C (320°F);
- For reduction of moisture uptake (for example for shipping, etc.) and to reach handling strength pre-cure for 15 minutes at 160°C (320°F).

Curing must be completed afterwards with a second heating process.

### Overpainting, tooling and finishing

For tooling, use small quantities of Sika® Slick. The joint has to be dry after the tooling prior to the curing or pre-curing process.

### Further Information

To contact Sika Corporations' Technical Services Department please send an e-mail to [tsmh@us.sika.com](mailto:tsmh@us.sika.com).

Copies of the following publications are available on request:

- Safety Data Sheets
- Curing window

### Packaging Information

Unipacks	400 ml
Drum	195 liter

### Basis of Product Data

All technical data stated in this Product Data Sheet are based on laboratory tests only. 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.

### Limited Material Warranty

Sika Corporation 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 shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor.

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