

**BUILDING TRUST** 

# PRODUCT DATA SHEET

# Sikaflex®-630 HD-2

Flexible headlamp assembly adhesive with rapid early strength development

# TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

| Chemical base                                    |                           | Polyurethane           |
|--------------------------------------------------|---------------------------|------------------------|
| Color (CQP001-1)                                 |                           | Black                  |
| Cure mechanism                                   |                           | Moisture-curing        |
| Density (uncured)                                |                           | 1.13 kg/l              |
| Application temperature                          | product                   | 90 – 100 °C            |
| Open time (CQP526-1)                             |                           | 2 minutes <sup>A</sup> |
| Curing speed (CQP049-1)                          |                           | See diagram 1          |
| Shrinkage (CQP014-1)                             |                           | 1 %                    |
| Shore A hardness (CQP023-1 / ISO 48-4)           |                           | 50                     |
| Tensile strength (CQP036-1 / ISO 527)            |                           | 8 MPa                  |
| Elongation at break (CQP036-1 / ISO 37)          |                           | 1000 %                 |
| E-Modulus (CQP036-1 / ISO 37)                    | 0.5 – 5 %                 | 3 MPa                  |
| Tear propagation resistance (CQP045-1 / ISO 34)  |                           | 32 N/mm                |
| Tensile lap-shear strength (CQP046-1 / ISO 4587) |                           | 3 MPa                  |
| Service temperature                              | according to WSS-M11P28-D | 107 °C                 |
|                                                  | 4 hours                   | 120 °C                 |
| Shelf life                                       |                           | 12 months <sup>B</sup> |
| A)                                               | the state of the state of | P)                     |

CQP = Corporate Quality Procedure

A) depends on application temperature and joining method B) stored below 25 °C in unopened container

# **DESCRIPTION**

Sikaflex®-630 HD-2 is a 1-component high flexible polyurethane headlamp assembly adhesive with superior early strength development. It cures on exposure to atmospheric humidity.

# **PRODUCT BENEFITS**

- 1-component application
- High flexibility
- Rapid early strength attainment
- Good fogging behavior
- GMW16506 listed
- WSS-M11P28-D listed

# AREAS OF APPLICATION

Sikaflex®-630 HD-2 is suitable for permanent bonding of polar plastics like PC and PC/ABS. Flame or plasma pre-treatment allows to bond also non-polar plastics like PP.

The fast early strength development can typically allow a headlamp leak test to be performed 2 - 10 minutes after the bonding process. The duration of this time-span depends significantly on several factors, such as the size of the headlamp, the test pressure, etc. 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**

Sikaflex®-630 HD-2 cures by reaction with atmospheric moisture. At low temperatures the water content of the air is generally lower and the curing reaction proceeds somewhat slower (see diagram 1).

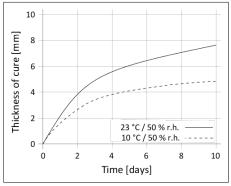


Diagram 1: Curing speed Sikaflex®-630 HD-2

# **CHEMICAL RESISTANCE**

Sikaflex®-630 HD-2 is generally resistant to fresh water, seawater, diluted acids and diluted caustic solutions; temporarily resistant to fuels, ethanol, mineral oils, vegetable and animal fats and oils; not resistant to organic acids, glycolic alcohol, concentrated mineral acids and caustic solutions or solvents.

#### METHOD OF APPLICATION

# **Surface Preparation**

Surfaces must be clean, dry and free from grease, oil, dust and contaminants.

Surface treatment depends on the specific nature of the substrates and is crucial for a long lasting bond. All pre-treatment steps must be confirmed by preliminary tests on original substrates considering specific conditions in the assembly process.

Physical pre-treatment steps has to be additionally tested on the production line.

# **Application**

Sikaflex®-630 HD-2 can be processed between 15 °C and 35 °C (ambient) but changes in application properties have to be considered.

It is processed with a corresponding pump equipment. Best results have been achieved with piston doser/metering units.

The open time is significantly shorter in cold climate. Never join bonding parts if the adhesive has already built a skin.

For advice on selecting and setting up a suitable pump system, contact the System Engineering Department of Sika Industry.

#### Removal

Uncured Sikaflex®-630 HD-2 may be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Once cured, the material can only be removed mechanically.

Hands and exposed skin have to be washed immediately using hand wipes such as Sika® Cleaner-350H or a suitable industrial hand cleaner and water.

Do not use solvents on skin.

# **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
- General Guideline
   Bonding and Sealing with 1-component

# PACKAGING INFORMATION

| Cartridge      | 300 ml |
|----------------|--------|
| Cardboard tube | 25 kg  |
| Pail           | 25 kg  |

# 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

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