

# PRODUCT DATA SHEET

# SikaPower<sup>®</sup>-880

Toughened, fast-curing two-component structural adhesive

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

| Properties                                       |                                 | SikaPower®-880 (A)                 | SikaPower <sup>®</sup> -880 (B) |
|--|---------------------------------|------------------------------------|---------------------------------|
| Chemical base                                    |                                 | Ероху                              | Amine                           |
| Colour (CQP001-1)                                |                                 | White                              | Grey                            |
|  | mixed                           | Grey                               |                                 |
| Density  |                                 | 1.25 kg/l                          | 1.26 kg/l                       |
|  | mixed (calculated)              | 1.26 kg/l                          |                                 |
| Mixing ratio                                     | by volume                       | 100 : 100                          |                                 |
|  | by weight                       | 100 : 102                          |                                 |
| Viscosity (CQP029-4)                             | at 10 s <sup>-1</sup>           | 120 Pa·s <sup>A</sup>              | 100 Pa·s <sup>A</sup>           |
| Consistency                                      |                                 | Thixotropic paste                  |                                 |
| Application temperature                          |                                 | 15 °C – 30 °C                      |                                 |
| Open time (CQP046-11 / ISO 4587)                 |                                 | 45 minutes <sup>A, B</sup>         |                                 |
| Handling time (CQP046-11 / ISO 4587)             |                                 | 5 hours <sup>A, B</sup>            |                                 |
| Shore D hardness (CQP023-1 / ISO 48-4)           |                                 | 70 <sup>c</sup>                    |                                 |
| Tensile strength (CQP543-1 / ISO 527)            |                                 | 22 MPa <sup>A, C</sup>             |                                 |
| E-Modulus (CQP543-1 / ISO 527)                   |                                 | 2 100 MPa <sup>A, C</sup>          |                                 |
| Elongation at break (CQP543-1 / ISO 527)         |                                 | 3 % <sup>A, C</sup>                |                                 |
| Tensile lap-shear strength (CQP046-9 / ISO 4587) |                                 | 23 MPa <sup>A, B, C</sup>          |                                 |
| Glass transition temperature (CQP509-1 / I       | 77 °C <sup>c</sup>              |                                    |                                 |
| Shelf life (CQP016-1)                            |                                 | 12 months <sup>D</sup>             |                                 |
| CQP = Corporate Quality Procedure                | <sup>A)</sup> 23 °C / 50 % r.h. | <sup>B)</sup> adhesive layer: 25 x | 12.5 x 0.3 mm / on steel        |

CQP = Corporate Quality Procedure

C) cured for 1 week at 23 °C

# DESCRIPTION

SikaPower<sup>®</sup>-880 is a thixotropic, fast curing, gap-filling 2-component epoxy adhesive, which cures at room temperature.

It is designed for use in structural joints, where toughness and high strength are required. Sika-Power<sup>®</sup>-880 is particularly suitable for bonding metallic substrates, like steel and aluminium, as well as composite substrates, like GFRP and CFRP laminates. The adhesive has very good application properties and shows elevated heat resistance.

A) 23 °C / 50 % r.h. D) stored between 10 and 30 °C

**PRODUCT BENEFITS** 

- High strength and high resistance to fatigue and impacts
- Long open time
- Fast curing at room temperature
- Very good non-sag and application properties
- · Contains glass beads of 0.3 mm to ensure optimal bonding thickness
- Does not contain solvents or PVC

# AREAS OF APPLICATION

SikaPower®-880 is suitable for fast assembly bonding applications in transportation and general industry, especially if high toughness and strength is required. It can also be used for repair applications as well as in hybrid joints in combination with spot welding, riveting or clinching.

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

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# CURE MECHANISM

SikaPower®-880 cures by a fast chemical reaction of the two components at room temperature. The cure rate can be further accelerated at higher temperatures, e.g., using ovens or infrared lamps. The final glass transition temperature, as well as the tensile and shear strengths, may be increased with higher curing temperature.

#### CHEMICAL RESISTANCE

In view of potential chemical or thermal exposure, it is required to conduct a project related testing.

# METHOD OF APPLICATION

#### Surface Preparation

Surfaces must be clean, dry and free from grease, oil and dust. Surface treatment depends on the specific nature of the substrates and is crucial for a long lasting bond. All pretreatment steps must be confirmed by preliminary tests on original substrates considering specific conditions in the assembly process.

#### Application

SikaPower®-880 is dispensed from 1:1 dual cartridges with adequate dispensers. The use of electric or pneumatic guns with piston-driven plungers is recommended. Extrude adhesive without mixer to equalize the filling levels. Attach the mixer and dispose of the first few cm of the bead before the application.

For advice on selecting and setting up a suitable pump system, contact Sika Canada.

#### Removal

Uncured SikaPower®-880 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 cleaning towels or a suitable industrial hand cleaner and water. Do not use solvents on skin.

# STORAGE CONDITIONS

SikaPower®-880 has to be kept at temperatures between 10 °C and 30 °C in a dry place. Do not expose it to direct sunlight or frost. After opening of the packaging, the contents have to be protected against humidity.

#### FURTHER INFORMATION

The information herein is offered for general guidance only. Advice on specific applications is available on request from Sika Canada. Copies of the following publications are available on request:

Safety Data Sheets

# PACKAGING INFORMATION

SikaPower<sup>®</sup>-880 (A+B)

| Dual cartridge                               | 400 mL |  |  |  |
|--|--------|--|--|--|
| Mixer: Sulzer MixPac <sup>™</sup> MFQ 08-24T |        |  |  |  |
| SikaPower®-880 (A)                           |        |  |  |  |
| Pail   | 19 kg  |  |  |  |
| Drum   | 225 kg |  |  |  |
| SikaPower®-880 (B)                           |        |  |  |  |
| Pail   | 19 kg  |  |  |  |
| Drum   | 227 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

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

#### DISCLAIMER

The information, and in particular, the recommendations relating to the application and enduse 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

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