

## PRODUCT DATA SHEET

# SikaPower®-830 AP

High performance toughened adhesive for wind turbine blade bonding

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

| Properties   | Component A<br>SikaPower®-830 AP            | Component B<br>SikaPower®-052 AP |
|--|---|----------------------------------|
| Chemical base                                      | Epoxy                                       | Amine                            |
| Color (CQP001-1)                                   | Yellow                                      | Blue                             |
|  | mixed                                       | Green                            |
| Density  | 1.15 g/cm <sup>3</sup>                      | 1.15 g/cm <sup>3</sup>           |
|  | mixed                                       | 1.15 g/cm <sup>3</sup>           |
| Mixing ratio                                       | A : B by weight 100 : 47                    |                                  |
| Solid content                                      | 100 %                                       |                                  |
| Viscosity (CQP538-2)                               | at 10 s <sup>-1</sup> 120 Pa·s <sup>A</sup> | 25 Pa·s <sup>A</sup>             |
| Consistency  | Thixotropic paste                           |                                  |
| Application temperature                            | 15 – 30 °C                                  |                                  |
| Open time (CQP046-11 / ISO 4587)                   | 120 minutes <sup>B, C</sup>                 |                                  |
| Curing time (CQP046-9 / ISO 4587)                  | at 70 °C 4 hours                            |                                  |
| Tensile strength (CQP543-1 / ISO 527)              | 40 MPa <sup>D, E</sup>                      |                                  |
| E-Modulus (CQP543-1 / ISO 527)                     | 3 000 MPa <sup>D, E</sup>                   |                                  |
| Elongation at break (CQP543-1 / ISO 527)           | 3 % <sup>D, E</sup>                         |                                  |
| Tensile lap-shear strength (CQP046-9 / ISO 4587)   | 20 MPa <sup>C, D</sup>                      |                                  |
| Glass transition temperature (CQP509-1 / ISO 6721) | 90 °C                                       |                                  |
| Shelf life (CQP016-1)                              | 12 months                                   |                                  |

CQP = Corporate Quality Procedure  
 C) adhesive layer: 25 × 12.5 × 3 mm / on GRE

A) tested at 20 °C  
 D) 23 °C / 50 % r. h.

B) 28 °C / 70 % r. h.  
 E) tested at 2 mm/min

**DESCRIPTION**

SikaPower®-830 AP is a tough, high strength, solvent-free, thixotropic epoxy adhesive. It is designed for bonding of wind turbine blades.

**PRODUCT BENEFITS**

- Fast curing at moderate temperatures
- Good fatigue properties
- High resistance against crack initiation and propagation
- Long open time at high temperatures and humidity
- Good non-sag properties
- Good adhesion to FRP (Fiber Reinforced Plastic)

**AREAS OF APPLICATION**

SikaPower®-830 AP is designed for bonding highly stressed components in the manufacturing process of wind turbine blades (shells, shear webs, 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.

**PRODUCT DATA SHEET**

SikaPower®-830 AP

Version 02.01 (01 - 2025), en\_IN  
 013106808300001020

## CURE MECHANISM

SikaPower®-830 AP cures by chemical reaction of the two components at room temperature. The cure rate is 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

SikaPower®-830 AP adheres usually well to epoxy composites if applied subsequently after the removal of the protective peel ply.

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 pre-treatment steps must be confirmed by preliminary tests on original substrates considering specific conditions in the assembly process.

### Application

SikaPower®-830 AP is applied out of drums with automatic application equipments.

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

## Removal

Uncured SikaPower®-830 AP 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.

## STORAGE CONDITIONS

SikaPower®-830 AP has to be kept between 10 °C and 30 °C in a dry place. Do not expose 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 the Technical Department of Sika Industry.

Copies of the following publications are available on request:

- Safety Data Sheets

## PACKAGING INFORMATION

SikaPower®-830 AP (A)

|      |       |
|------|-------|
| Drum | 195 l |
|------|-------|

SikaPower®-052 AP (B)

|      |       |
|------|-------|
| Drum | 195 l |
|------|-------|

## 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

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 written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. 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.

## PRODUCT DATA SHEET

SikaPower®-830 AP  
Version 02.01 (01 - 2025), en\_IN  
013106808300001020

Sika India Pvt. Ltd.  
620, Diamond Harbour Road  
Commercial Complex II  
Kolkata - 700 034  
West Bengal, India  
Phone: +91 33 2447 2448  
info.india@in.sika.com

