

SikaPower®-1200

Fast curing, tough and high strength assembly adhesive

Typical Product Data (Further values see Safety Data Sheet)

Properties	Component A SikaPower®-1200 (A)	Component B SikaPower®-1040 (B)
Chemical base	Epoxy	Amine
Color (CQP ¹ 001-1)	Yellow	Blue
Color mixed	Green	
Curing mechanism	Polyaddition	
Density	1.14 g/cm ³	1.23 g/cm ³
Density mixed (calculated)	1.17 g/cm ³	
Mixing ratio	by volume by weight	100 : 50 100 : 54
Solids content	100 %	
Viscosity ²	at 10 s ⁻¹ at 10 s ⁻¹	120 Pa·s 45 Pa·s
Consistency (mixed)	Thixotropic paste	
Application temperature	15 – 30 °C	
Open time ³	45 minutes	
Typical curing time	at 23 °C at 70 °C	2 d 2 h
Tensile strength (CQP 545-2 / ISO 527) ⁴	40 MPa	
Elongation at break (CQP 545-2 / ISO 527) ⁴	3.5 %	
E-Modulus (CQP 545-2 / ISO 527) ⁴	2800 MPa	
Tensile lap-shear strength (ISO 4587) ^{4,5}	20 MPa	
Critical stress intensity factor K _{Ic} (ISO 13586) ^{4,6}	2.7 MPa m ^{1/2}	
Critical energy release rate G _{Ic} (ISO 13586) ^{4,6}	3.5 N/mm	
Glass transition temperature (peak tanδ) ^{4,7}	90 °C	
Shelf life (CQP 016-1) (storage between 10 °C and 25 °C)	12 months	

¹⁾ CQP = Corporate Quality Procedure

⁴⁾ after curing for 4 h at 70 °C

⁶⁾ CT-specimens (Optical Crack Tracking)

²⁾ Rheometer PP25, d=1 mm

⁵⁾ On GRE with layer thickness 3 mm

⁷⁾ Dynamic Mechanical Thermo Analysis (DMTA)

³⁾ at 23 °C / 50 % r.h. on FRP

Description

SikaPower®-1200 is a tough, high strength, solvent free, thixotropic, fast curing epoxy adhesive. It has been designed for fast assembly bonding.

Product Benefits

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

Areas of Application

SikaPower®-1200 is suitable for fast assembly bonding of highly stressed components especially if high strength and superior fatigue properties are required. This product is suitable for professional experienced users only. Tests with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.



Cure Mechanism

The curing of SikaPower®-1200 takes place by chemical reaction of the two components. Higher temperatures speed up the curing process and lower temperatures slow down the curing process.

Environmental Resistance

In view of potential chemical or thermal exposure, conduct a project related testing.

Method of Application

Surface preparation

SikaPower®-1200 adheres usually well to FRP (Fiber Reinforced Plastics) without additional pre-treatment, if applied subsequently after the removal of the protecting peel ply. In other cases, cleaning and physical or chemical pre-treatment of the substrates may be required.

Application from cartridge

For the cartridge application, use a suitable manual or a compressed air piston-type cartridge gun. To ensure good mixing quality a static mixer of type Sulzer MixPac® Quadro MGQ 08-24T must be used. Other static mixers may be suitable but have to be thoroughly tested beforehand.

Cleaning

Uncured SikaPower®-1200 can 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®-1200 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 Sheet

Packaging Information

SikaPower®-1200

Dual cartridge	450 ml
----------------	--------

SikaPower®-1200 (A)

Drum	220 kg
------	--------

SikaPower®-1040 (B)

Drum	240 kg
------	--------

Basis of Product Data

All technical data stated in this Product Data Sheet 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 end-use 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.



Further information available at:

www.sika.ch
www.sika.com

Sika Schweiz AG
Business Unit Industry
Tüffenwies 16
CH-8048 Zurich
Switzerland
Tel. +41 58 436 40 40
Fax +41 58 436 55 30

