BUILDING TRUST

PRODUCT DATA SHEET

SikaPower®-1548

MULTIPURPOSE, LONG OPEN TIME AND SELF-LEVELING ADHESIVE

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties		SikaPower®-1548 A	SikaPower®-1548 B
Chemical base		Epoxy	Amine
Color (CQP001-1)		Transparent	Light amber
	mixed	Translucent amber	
Density		1.2 g/cm³	1 g/cm³
	mixed, calculated	1.1 g/cm³	
Mixing ratio	A:B by volume	1:1	
	A:B by weight	10:8	
Viscosity (by Brookfield)	LVT	40 Pa·s [A]	30 Pa·s [A]
Consistency	mixed	Thick liquid	
Application temperature		15 – 30 °C	
Pot-life (CQP021-1)		100 minutes [A]	
Handling time (CQP580-1, -6 / ISO 4587)	time to reach 1 MPa	7 hours [A, B]	
Shore D hardness (CQP023-1 / ISO 7619-1)		75	
Tensile strength (CQP543-1 / ISO 527)		26 MPa [A, C]	
E-Modulus (CQP543-1 / ISO 527)		1 000 MPa [A, C]	
Elongation at break (CQP543-1 / ISO 527)		12 % [A, C]	
Tensile lap-shear strength (CQP046-9 / ISO 4587)		26 MPa [A, B, C]	
Electrical resistivity (CQP079-2 / ASTM D 257-99)		1.7·10¹⁸ Ω·cm	
Glass transition temperature (CQP509-1 / ISO 6721)		40 °C [C]	
Shelf life		24 months [D]	

CQP = Corporate Quality Procedure

[A] 23 °C / 50 % r. h.

[B] adhesive thickness: 1 mm / substrate: GFR-Epoxy

[C] cured for 1 day at 40 °C

[D] storage between 15 and 25 °C

DESCRIPTION

SikaPower®-1548 is a multipurpose two-component epoxy adhesive, which cures at room temperature reaching high strength. The adhesive is self-leveling and has a comfortable working time, allowing bonding of large surfaces and adjustments after assembly. Its medium viscosity makes it suitable for both potting and bonding. Its translucent color is hardly visible when applied in thin layers.

PRODUCT BENEFITS

- Versatile for bonding a wide variety of substrates
- High mechanical performance and good ageing resistance
- Long open time at room temperature, accelerated curing with heat
- Suitable for potting
- Injectable and self-leveling
- Translucent amber color, transparent in thin layers

AREAS OF APPLICATION

SikaPower®-1548 is suitable for various assembly applications in general industry and craft works. Its application range includes bonding of the most common materials, such as metals, wood, ceramics, several plastics and composites. SikaPower®-1548 is a versatile adhesive, which can be used in thin and thick layers as well as for potting applications. 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

SikaPower®-1548 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.
The lap-shear strength [MPa] build-up of SikaPower®-1548 at different curing temperatures can be seen in the following table.

Curing Time	23 °C	40 °C	80 °C
1 h	-	-	26
4 h	-	19	28
16 h	10	25	
24 h	16	26	
48 h	17		
7 d	19		
14 d	20		

Table 1: Lap-shear strength build-up on GFR-Epoxy (bondline 1 mm)
Grey = Final strength

ADHESION RESULTS

The following table summarizes typical lap-shear strength values on different substrates. These results are indicative only. Due to the diversity of substrates, preliminary tests are mandatory.

Substrate [A]	Strength	FM [B]
Aluminum	13 MPa	A
Mild Steel	15 MPa	A
Stainless Steel	16 MPa	A
GRF-Epoxy	20 MPa	C/A
GFR-Polyester	6 MPa	S
SMC	8 MPa	S
ABS	4 MPa	A
Powder Coat	11 MPa	S

Table 2: Adhesion results (bondline 1 mm cured 14 days at 23 °C)
[A)] Pretreatment: abrading and cleaning
[B)] Failure mode: Adhesion, Cohesive, Substrate

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

Application

SikaPower®-1548 is dispensed from 1:1 dual cartridges with adequate manual or pneumatic guns. In order to achieve a proper mixing a Nordson Square Turbo Mixer 180A-824 (for 200 ml cartridges) or a 295-620 (for 50 ml cartridges) is required.
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.

Removal

Uncured SikaPower®-1548 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!

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®-1548

Dual cartridge	50 ml 200 ml

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.

Sika Italia S.p.A.
Via Luigi Einaudi 6
20068 Peschiera Borromeo (MI)
industry@it.sika.com
Tel. +39 02 54778111
Fax +39 02 54778409
www.sika.it