

# PRODUCT DATA SHEET

# SikaPower®-731 (ADEKIT A100)

# **TWO-COMPONENT EPOXY ADHESIVE**

**CERAMIC BONDING - FAST SETTING** 

### **DESCRIPTION**

Ceramic bonding and repair applications.

#### **PROPERTIES**

- Two- component room temperature curing Epoxy adhesive
- Liquid product suitable for injection
- Fast setting product adapted to reduce assembly time
- Excellent mechanical performances

### **PHYSICAL PROPERTIES**

Composition		RESIN (A)	HARDENER (B)	MIX	METHOD
Mix ratio by weight		100	94		
Mix ratio by volume at 25 °C		100	100		
Colour		Beige	Very pale yellow	Beige	
Density at 25 °C		1.23 <sup>(KP)</sup>	1.15	-	LT-020
Density of cured product at 23 °C	C	-	-	1.17	LT-047
Pot life on 100 g at 25 °C (KP)	(min)	-	-	4 – 6	LT-002-B
Open time	(min)	-	-	10	-

<sup>(</sup>KP) Key properties. These values are enclosed in Certificate of Analysis.

# MECHANICAL PROPERTIES (1)

Hardness (KP) (2)	(Shore D)	70	LT-022
Tensile strength	(MPa)	45	ISO 527
Elongation at break	(%)	3	ISO 527
Recommended use temperature	(°C)	15 to 30	-
Working temperature (3)	(°C)	- 40 to 60	LT-006-B

<sup>(1)</sup> Cured 8 h at 80 °C + 48 h at room temperature.



<sup>(2)</sup> Cured 30 minutes at room temperature.

<sup>(3)</sup> Working temperature is defined as the temperature at which product keeps 80% of its initial Lap Shear Strength after 1000 hours ageing at this temperature, value on Aluminium, measured at 23 °C.

# HANDLING TIME (1)

At 23 °C (min) **15** LT-006-B

# MECHANICAL PROPERTIES ON ASSEMBLIES (1)

	LAP SHEAR STRENGTH AT 23 °C (MPa)		METHOD
Aluminium 2017A	Initial	27 AF	
(etched in sulfochromic bath)	After wet cataplasm 15 days at 80 °C	20 AF	
	After 15 cycles D3 <sup>(2)</sup>	22 AF	
	After ageing 3 weeks at 100 °C	17 AF	
	After immersion for 3 weeks in motor oil at 70 °C	14 AF	
	After immersion for 3 weeks in hydrochloric acid (0.1 N) at 23 °C	oric acid (0.1 N) 21 AF	
	After immersion for 3 weeks in soda (0.1 N) at 23 °C	22 AF	
	After immersion for 3 weeks in seawater at 23 °C	19 AF	
	After immersion for 3 weeks in gasoil at 23 °C	19 AF	
	After immersion for 3 weeks in gas at 23 °C	20 AF	

<sup>(1)</sup> Cured 8 hours at 80 °C + 48 h at room temperature

(2) Cycle D3 : 16 h at 40 °C/95 % RH + 3 h at -20 °C + 5 h at 70 °C/50 %  $\pm$  5 % RH

AF: Adhesive Failure according to EN ISO 10365 standard

# FLOATING ROLLER PEEL STRENGTH AT 23°C

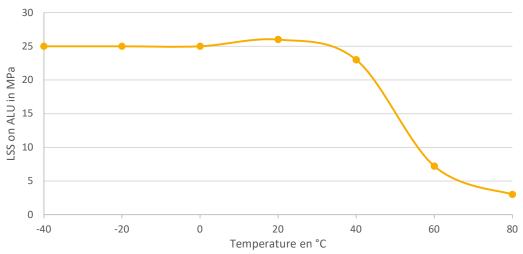
Aluminium 2017A	(kN/m)	2.45	100 4570
(etched in sulfochromic bath) (KN)		3 AF	ISO 4578

AF: Adhesive Failure



<sup>(1)</sup> Handling time is defined as the time needed to obtain Lap Shear Strength on Aluminium at 23 °C, of 1 MPa.

# Lap Shear Strength on Aluminium vs temperature (1)



#### (1) Cured: 8 h at 80 °c + 48 h at room temperature

### **PROCESSING**

- Equipment: SikaPower®-731 (AB) is packaged in 200 ml cartridges and require a manual or pneumatic gun.
  - Please consult our technical department for applications needing a machine.
- Substrate preparation: The item to be bonded must be free of all dirt, oil or other foreign matter. A
  clean, dry surface is a must.
  - Consult our Technical Support about surface preparations.

### HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products:

- Ensure good ventilation.
- Wear gloves, glasses and protective clothes.

For further information, please consult the Safety Data Sheet.

### STORAGE CONDITIONS

Shelf life of **SikaPower®-731 (AB)** is **12 months** in a dry place and in original unopened containers at a temperature between 15 °C and 25 °C.

### **PACKAGING**

■ SikaPower®-731 (AB) / 200 ml

Box of 24 cartridges



#### **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 Advanced Resins. Copies of the following publications are available on request: Safety Data Sheets.

#### **VALUE BASES**

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.

#### LEGAL NOTICE

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.

#### CONTACT

#### SIKA DEUTSCHLAND GmbH

Stuttgarter Straße 139
72574 Bad Urach – GERMANY
Tel.: (+49) 7 125 940 492
Fax.: (+49) 7 125 940 401
E-mail: tooling@de.sika.com
Website: www.sikaadvancedresins.de

#### SIKA AUTOMOTIVE FRANCE S.A.S.

ZI des Béthunes - 15, Rue de l'Equerre 95310 Saint-Ouen-l'Aumône CS 40444

95005 CERGY PONTOISE Cedex – FRANCE

Tel.: (+33) 1 344 034 60 Fax: (+33) 1 342 197 87

E-mail: advanced.resins@fr.sika.com Website: www.sikaadvancedresins.fr

#### **AXSON TECHNOLOGIES SPAIN, S.L.**

Polígon Industrial Congost - Guardaagulles, 8 08520 LES FRANQUESES DEL VALLES – SPAIN Tel.: (+34) 932 25 16 20

E-mail: spain@axson.com
Website: www.sikaadvancedresins.es

#### AXSON ITALIA S.R.L

Via Morandi 15 21047 Saronno (Va) – ITALY Tel.: (+39) 02 9670 2336 Fax: (+39) 02 9670 2369 Fax: laxson@axson.it Website: www.sikaadvancedresins.it

#### AXSON UK Itd

Unit 15 Studlands Park Ind. Estate Newmarket Suffolk, CB8 7AU – UNITED KINGDOM Tel.: (+44) 1638 660 062

Fax: (+44) 1638 665 078 E-mail: sales.uk@axson.com Website: www.sikaadvancedresins.uk

### SIKA AUTOMOTIVE SLOVAKIA s.r.o.

Tovarenska 49
95301 ZLATE MORAVCE – SLOVAKIA
Tel: (+421) 376 422 526
Fax: (+421) 376 422 527
E-mail: axson.sk@axson.com
Web site: www.sikaadvancedresins.sk

#### SIKA ADVANCED RESINS US

30800 Stephenson Highway Madison Heights, Michigan 48071 – USA Tel.: (+1) 248 588-2270 Fax: (+1) 248 577-0810 E-mail: axsonmh@axson.com Web site: www.sikaadvancedresins.us

#### SIKA AUTOMOTIVE MEXICO S.A. DE C.V.

Ignacio Ramírez #20
Despacho 202 Col. Tabacalera
C.P. 06030 CDMX – MEXICO
Tel.: (+52) 55 5264 4922
Fax: (+52) 55 5264 4916
Email: marketing@axson.com.mx
Website: www.sikaadvancedresins.mx

#### SIKA AUTOMOTIVE SHANGHAI CO. Ltd

N°53 Tai Gu Road Wai Gao Qiao Free Trade Zone, Pudong 200131 Shanghai – CHINA Tel.: (+86) 21 5868 3037 Fax: (+86) 21 5868 2601 E-mail: marketing.china@axson.com Website: www.sikaadvancedresins.cn

#### SIKA JAPAN Ltd

JAPAN LU 2-5-12 Onishi Okazaki Aichi 444-0871 – JAPAN Tel.: (+81) 564 26 2591 Fax: (+81) 564 26 2593 E-mail: sales.japan@axson.com Website: www.sikaadvancedresins.jp

### AXSON INDIA Pvt. Ltd.

Office n°8, Building Symphony C - 3rd Floor Range Hills Road Bhosale Nagar PUNE 411 020 – INDIA Tel: (+ 91) 20 25 56 07 10 Fax: (+ 91) 20 25 56 07 12 E-mail: info.india@axson.com Website: www.sikaadvancedresins.in

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