

PRODUCT DATA SHEET

ADEKIT A 170-1

BI-COMPONENT EPOXY ADHESIVE THIXOTROPIC

DESCRIPTION

Bonding of elements of metallic or composite structures.
Bonding of car body.
Aeronautic applications.

PROPERTIES

- Two component high performance room temperature curing Epoxy adhesive
- Suitable for edgewise assemblies
- Slow setting adapted to bond wide surfaces
- Excellent mechanical performances up to 100°C
- Resistant to stringent ageing and aggressive environments

PHYSICAL PROPERTIES

Composition	RESIN	HARDENER	MIX	METHOD
Mix ratio by weight	100	100		
Mix ratio by volume at 25 °C	100	100		
Colour	Black	Grey	Black (BK)	
Density at 25 °C ^(KP)	1.22	1.27	-	LT-020
Density of cured product at 23 °C	-	-	1.24	ISO 2781
Pot life on 100g at 23°C ^(KP)	(min)	-	27	LT-002-B
Open time on 7mm bead at 23°C	(min)	-	60	LT-006-B

(KP) Key properties. These values are enclosed in Certificate of Analysis.

MECHANICAL PROPERTIES⁽¹⁾

Hardness ^(KP) ⁽²⁾	(Shore D)	84	LT-022
Tensile strength	(MPa)	30	ISO 527-2
Elongation at break	(%)	7	ISO 527-2
YOUNG Modulus	(MPa)	1900	ISO 527-2
Recommended use temperature	(°C)	15 - 35	-
Working temperature ⁽³⁾	(°C)	-40 - 100	LT-006-B

(1) Cured 16 h at 70 °C

(2) Cured 2 h at 80 °C

(3) 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	5 h 30	
At 40 °C	1 h 05	LT-006-B
At 60 °C	30 min	

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

MECHANICAL PROPERTIES ON ASSEMBLIES ⁽¹⁾

	LAP SHEAR STRENGTH AT 23 °C (MPa)	METHOD
Aluminium 2017A (sandblasted)	Initial	23 SCF/AF
	After wet cataplast 7 days at 70 °C / 100 % RH	22.5 AF
Stainless Steel 304 (sandblasted)	Initial	25 AF
	After wet cataplast 7 days at 70 °C / 100 % RH	22.5 AF
Electro-galvanized Steel (sandblasted)		22 SCF
Electro-galvanized Steel (acetone wipe)		19 AF
ABS (sanded + Isopropanol)		3.5 SF
PC (sanded + Isopropanol + plastic primer ⁽²⁾)		1.5 AF
PVC (sanded + Isopropanol)		6.5 SF
PMMA (sanded + Isopropanol + plastic primer ⁽²⁾)		2 AF
PA6E (sanded + Isopropanol + plastic primer ⁽²⁾)		3 AF

(1) Cured 16 hours at 70°C.

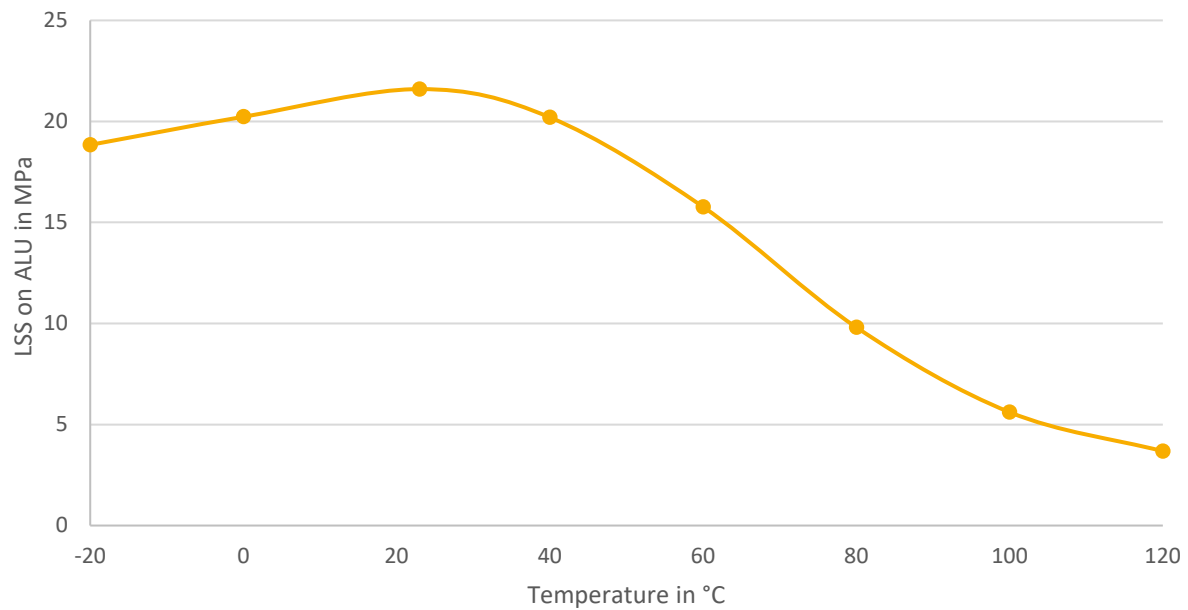
(2) Plastic sanded, Isopropanol wipe and coated with Plastic Primer 5069 from Sika Advanced Resins.

SCF : Special Cohesive Failure, AF : Adhesive Failure, SF : Substrate Failure, according to EN ISO 10 365 Standard.

FLOATING ROLLER PEEL STRENGTH AT 23°C

Aluminium 2017A (sandblasted)	(kN/m)	5	ISO 4578
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Lap Shear Strength on ALU versus Temperature



PROCESSING

- **Equipment:** ADEKIT A170-1 packaged in 400 ml cartridges 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 Sheets.

STORAGE CONDITIONS

Shelf life of **ADEKIT A170-1** is **12 months** in a dry place and in original unopened containers at a temperature between 15 °C and 25 °C.

PACKAGING

- A 170-1 Box of 12 cartridges of 400 ml

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.

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