

PRODUCT DATA SHEET

ADEKIT A 171-1 / H 9971-1

BI-COMPONENT EPOXY ADHESIVE HIGH PERFORMANCES – SELF EXTINGUISHING

DESCRIPTION

Bonding of inserts in honey comb structures
Bonding of composite structures in Aeronautic
Bonding of structures requiring good flame resistance

PROPERTIES

- Two component high performances room temperature curing Epoxy adhesive
- Self extinguishing according to FAR 25§853 ((a), Amdt 21) and ABD0031 (issue G)
- Slow setting product adapted to bond wide surfaces
- Suitable for edgewise assemblies
- Excellent mechanical properties up to 100 °C
- Product adapted 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	White	Beige	Clear beige	
Density at 25 °C ^(KP)	1.24	1.23	-	LT-020
Density of cured product at 23 °C	-	-	1.23	LT-047
Viscosity at 25 °C (Pa.s)	90	220	130	LT-001
Pot life on 100 g at 25 °C ^(KP) (min)	-	-	37	LT-002-C
Open time 7 mm bead at 23 °C (min)	-	-	45 – 50	LT-006-B

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

MECHANICAL PROPERTIES ⁽¹⁾

Hardness (Shore D)		83	LT-022
Tensile strength (MPa)		30	ISO 527
Elongation at break (%)		3	ISO 527
YOUNG Modulus (MPa)		2500	ISO 527
Recommended use temperature (°C)		15 - 35	-
Working temperature ⁽²⁾ (°C)		-40 à 100	LT-006-B

(1) Cured 16 hours a 70 °C

(2) 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	6h30	
At 40 °C	2h50	LT-006-B
At 60 °C	1h	

(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	22.5 CF
	After wet cataplast 7 days at 70 °C / 100 % RH	17 CF
Stainless Steel 304 (sandblasted)		23 CF
Electro-galvanized Steel (sandblasted)		26 SCF
Electro-galvanized Steel (acetone wipe)		21 SCF/AF
ABS (sanded + Isopropanol)		2 AF
PC (sanded + Isopropanol + plastic primer ⁽²⁾)		2.5 AF
PVC (sanded + Isopropanol)		7 SF
PMMA (sanded + Isopropanol + plastic primer ⁽²⁾)		3.5 SF
PAGE (sanded + Isopropanol)		4.5 SF/AF
GFR Polyester (Isopropanol wipe)		6 DF

(1) Cured 16 hours at 70 °C

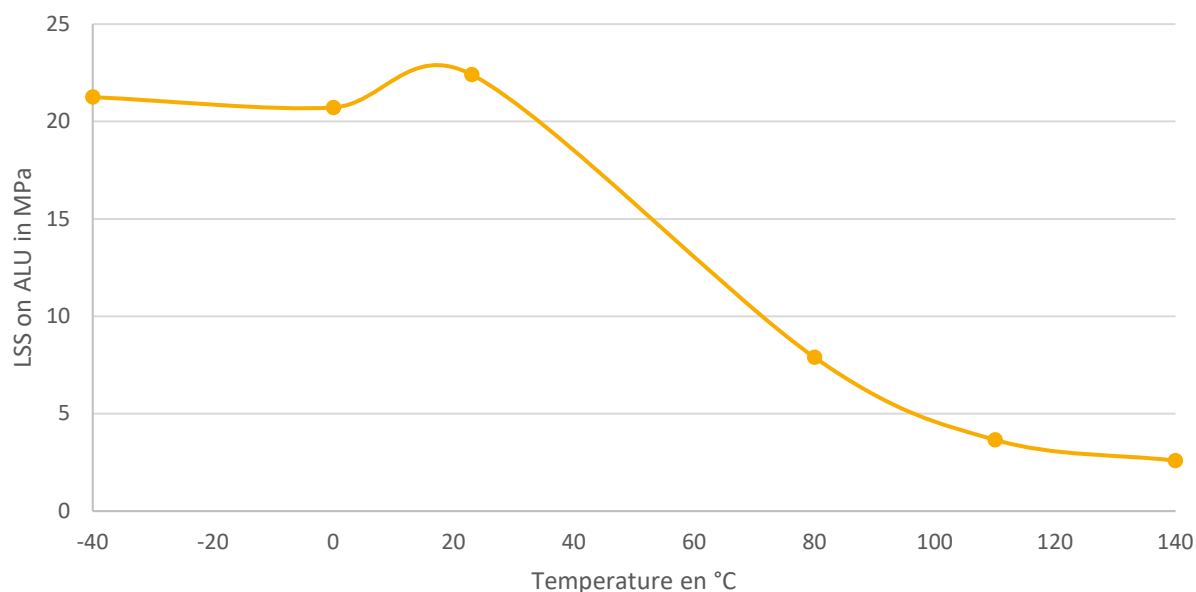
(2) Plastic sanded, Isopropanol wipe and coated with Plastic Primer 5069 from Sika Advanced Resins

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

FLOATING ROLLER PEEL STRENGTH

Aluminium 2017A (sandblasted)	(kN/m)	4	ISO 4578
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LSS on ALU versus Temperature



PROCESSING

- **Equipment:** ADEKIT A171-1 is packaged in 400 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 **ADEKIT A171-1** is **12 months** in a dry place and in original unopened containers at a temperature between 15 and 25 °C.

Shelf life of **ADEKIT H9971-1 Resin** and **H9971-1 Hardener** is **12 months** in a dry place and in original unopened containers at a temperature between 15 and 25 °C.

PACKAGING

■ A171-1	Box of 12 cartridges of 400 ml
■ H9971-1 Resin	25 kg
■ H9971-1 Hardener	25 kg

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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