

ADEKIT A140-1

ADEKIT H9940-1

STRUCTURAL EPOXY ADHESIVE
HIGH PERFORMANCES
Temporary Technical Data Sheet



DESCRIPTION

Bonding of car body, bonding metallic structures (racing vehicles, aeronautics), bonding inserts and composite structures

PROPERTIES

- 2 component high performance room temperature cured epoxy adhesive
- Non sagging paste product suitable for vertical applications and to fill irregular joints
- Excellent mechanical and thermal performances up to 130°C
- Excellent strength to dynamic loads (vibrations and impacts)
- Product adapted to stringent ageing and aggressive environments

PHYSICAL PROPERTIES				
Composition	RESIN	HARDENER	MIX	Method
Mix ratio by weight	100	90		
Mix ratio by volume at 25°C	100	100		
Colour	Beige (BG) Black (BK)	Beige	Beige (BG) Black (BK)	
Viscosity at 25°C, Pa.s ^(KP)	950	NA	NA	LT-054 / 0.1 s ⁻¹
Density at 25°C ^(KP)	1.38	1.22	-	LT-020
Density of mixed product at 23°C	-	-	1.30	ISO 2781
Pot life at 23°C on 100g, min ^(KP)	-	-	25	LT-002
Open Time on 7 mm bead at 23°C, min	-	-	40	LT-006-B

(KP): Key Properties. These values are enclosed in Certificate Of Analysis.

MECHANICAL PROPERTIES

Hardness, Shore D*	80	ISO 868
Tensile strength, MPa *	30	ISO 527-2
Elongation at break, % *	4	
Young Modulus, MPa *	2500	
Recommended application temperature, °C	15 - 30	-
Working temperature, °C **	-40 to 130	LT-006-B

*cured 16H at 70°C

** 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.

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HANDLING TIME

At 23°C	4h	LT-006-B
At 40°C	1h30	
At 60°C	30 min	

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

MECHANICAL PROPERTIES ON ASSEMBLIES (Cured 16H at 70°C)

Lap Shear Strength at 23°C				
Aluminium 2017A sandblasted	Initial	20 CF	MPa	LT-006-B
	After wet cataplasme 7days 70°C/100% RH	16 CF		
	After 21 cycles D3**	16 CF		
Stainless Steel 304 sandblasted		23 CF		
Electro galvanised Steel sandblasted		21 CF		
Electro galvanised Steel Acetone wipe		20 CF		
ABS Sanded + Isopropanol		5 SF		
PC Sanded+Isopro.+ Plastic primer*		2 AF		
PVC Sanded + Isopropanol		5 SF		
PMMA Sanded + Isopro.+Plastic primer*		3 AF		
PA6E Sanded + Isopropanol		4.5 SF/AF		

CF: Cohesive Failure, AF: Adhesive Failure, SCF: Special Cohesive Failure, SF: Substrate Failure
DF: Delamination Failure, according to EN ISO 10365 Standard.

*Plastics sanded, Isopropanol wiped and coated with Sika Advanced Resins Plastic Primer 5069.

**Cycle D3: 16h at 40°C/ 95% RH + 3h at -20°C + 5h at 70°C/ 50 ± 5% RH according to ISO 9142 Standard.

Floating roller Peel Strength at 23°C				
Aluminum 2017A sandblasted		6 CF	KN/m	ISO 4578

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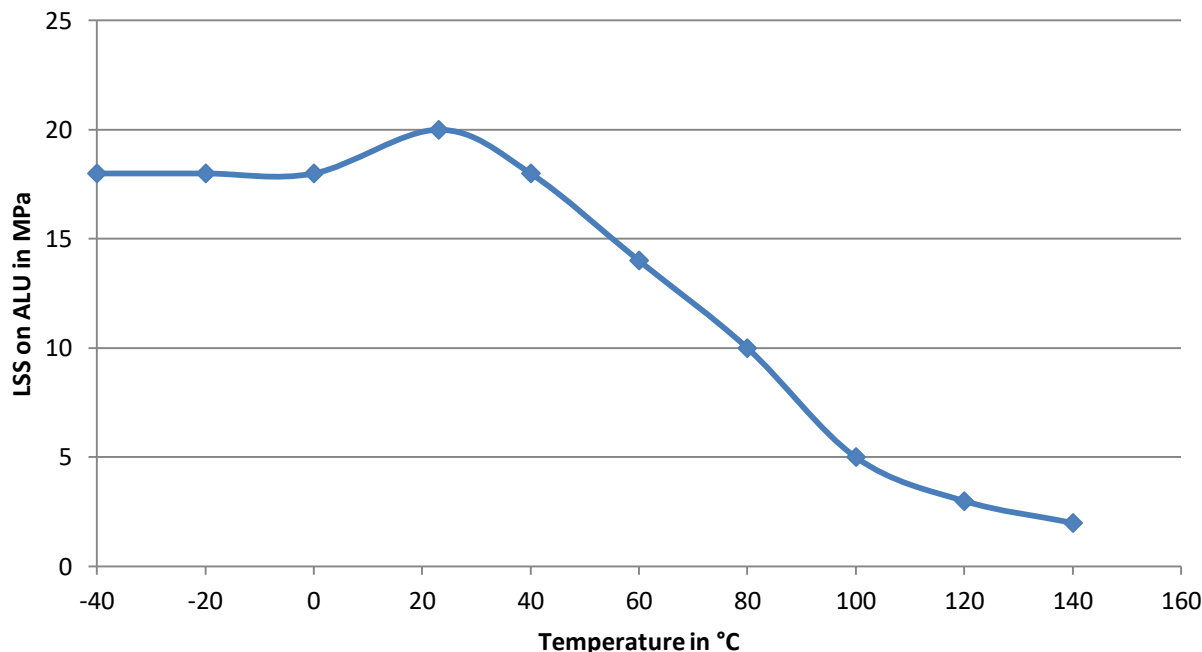
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Lap Shear Strength on ALU VS Temperature



EQUIPMENT: ADEKIT A140-1 is packaged in 50 ml and 400 ml cartridges and requires 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 to choose adapted degreaser or cleaner

HANDLING PRECAUTIONS

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

- ensure good ventilation
- wear gloves and safety glasses
- wear waterproof clothes

For further information, please consult the product safety data sheet.

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STORAGE CONDITIONS

Shelf life of ADEKIT A140-1 and of ADEKIT H 9940-1 POLYOL and ISOCYANATE is **12 months**, stored in their original unopened packaging at temperature between +15°C and +25°C.

PACKAGING

A140-1 / 50ml	Box of 12 cartridges
A140-1 / 400ml	Box of 12 cartridges
H9940-1 Resin & H9940-1 Hardener	Please consult our Sales Department

GUARANTEE

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.