

PRODUCT DATA SHEET

ADEKIT A 310-1

METHACRYLATE ADHESIVE MULTIPURPOSE

DESCRIPTION

Bonding of composites, thermoplastics and metals without any primer application.

PROPERTIES

- Two-component room temperature curing Methacrylate adhesive
- Non sagging paste product suitable for vertical applications and to fill irregular joints
- Fast setting product adapted to reduce assembly time
- Excellent behavior at low temperatures
- Excellent mechanical and thermal performances
- Product adapted to assemblies involving dissimilar materials
- Excellent strength to dynamic loads (vibrations and impacts)
- Product adapted to stringent ageing and aggressive environments
- Product requiring minimum surface preparation of the substrates

PHYSICAL PROPERTIES

Composition	ADHESIVE	ACTIVATOR	MIX	METHOD
Mix ratio by weight	100	100		
Mix ratio by volume at 25 °C	100	100		
Colour	Off white	Off white	Off white	
Viscosity at 24 °C (Pa.s)	50 – 70	30 – 50	-	BROOKFIELD
Density	1.00 – 1.03	0.98 – 1.00	-	
Open time on 7 mm bead at 23 °C (min)	-	-	10 - 20	LT-006-B
Handling time at 23 °C ⁽¹⁾ (min)			30 - 45	LT-006-B

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

MECHANICAL PROPERTIES

Tensile strength (MPa)		22 – 25	ASTM D638
Elongation at break (%)		25 – 30	ASTM D638
YOUNG Modulus (MPa)		1200 – 1700	ASTM D638
Recommended use temperature (°C)		18 - 25	-
Working temperature ⁽¹⁾ (°C)		- 40 to 120	LT-006-B

(1) 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.

MECHANICAL PROPERTIES ON ASSEMBLIES ⁽¹⁾

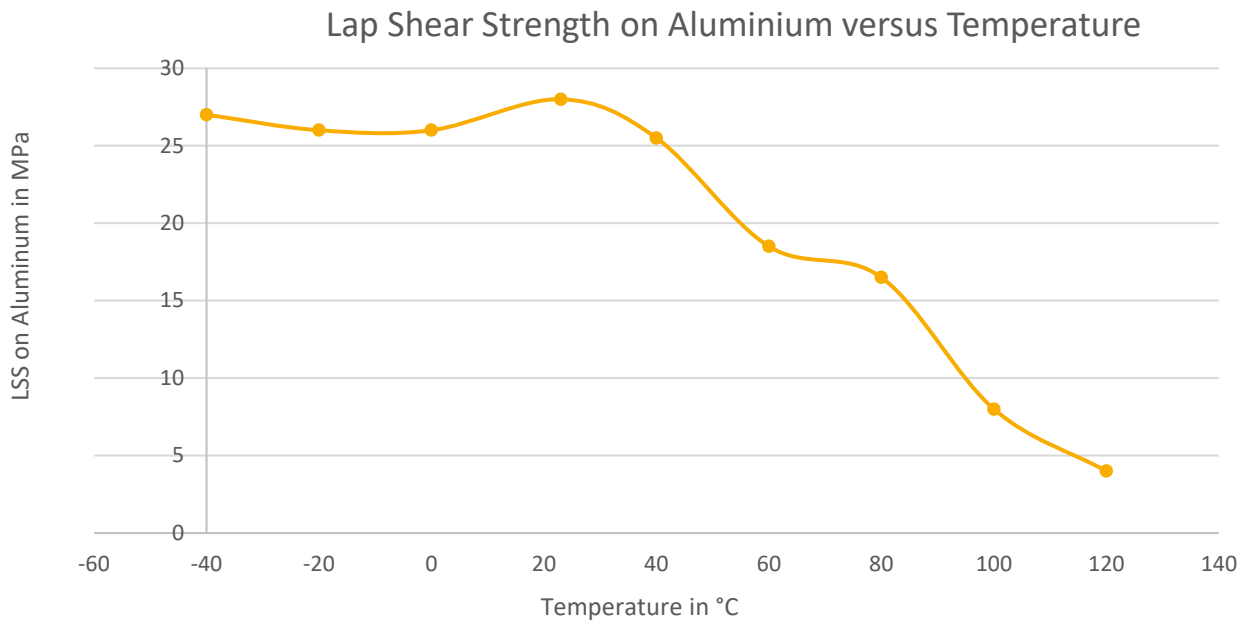
LAP SHEAR STRENGTH AT 23 °C (MPa)		METHOD
Aluminium 2017A (sandblasted)	Initial	17 - 22 CF
	After wet cataplastm 7 days at 70 °C / 100 % RH	17 - 22 CF
Stainless Steel 304 (sandblasted)		21 CF
Electro-galvanized Steel (sandblasted)	Initial	16 CF
	After wet cataplastm 7 days at 70 °C / 100 % RH	16 CF
Electro-galvanized Steel (acetone wipe)		19 CF
Polycarbonate		7 SF
ABS		6 SF
PMMA		6 SF
Carbon prepreg Composite		8 DF

(1) Cured 24 hours at 23 °C

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

FLOATING ROLLER PEEL STRENGTH AT 23°C

Aluminium 2017A (sandblasted)	(kN/m)	8	ISO 4578
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PROCESSING

- **Equipment:** ADEKIT A 310-1 is packaged in 50 ml and 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 A 310-1 in cartridges** is **9 months** in a dry place and in original unopened containers at a temperature between 2 °C and 23 °C.

It is highly recommended that products should never be frozen. Exposure to temperatures above 23 °C will reduce the shelf life of these products.

Exposure above 35 °C of activators, including the cartridges, should be avoided as the reactivity of the product is quickly reduced.

PACKAGING

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|--------------------|----------------------|
| ▪ A 310-1 / 50 ml | Box of 10 cartridges |
| ▪ A 310-1 / 400 ml | Box of 10 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.

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