Araldite® Kit K134

Araldite® Kit K134	Part A	100	pbw
Araldite® Kit K134	Part B	40	pbw

Araldite® Kit K134 is a two part, epoxy based adhesive

Application

This system cures at 20°C -120°C and may be used to bond metals, ceramics, wood, PVC foams and many types of plastics to themselves or to one another.

Processing methods

Manual mixing

Key Properties

Easy to mix

Cures with negligible shrinkage

Good resistance to static and dynamic stresses

Good resistance to temperatures up to 80°C - 100°C

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Product Data (Guideline Values)

Araldite® Kit K134

		Resin	Hardener
Colour		White paste	Yellow or amber Liquid
FlashPoint	°C	154 (Method:DIN 51758)	37 (Method: DIN 51755)
Density g/cm³	At 25°C	1.15-1.25	0.9-0.95
Viscosity mPa.s	At 25°C	24,000 – 34,000	1,000 – 1,600

Processing Data (Guideline Values)

Mix Ratio

		Parts by weight
Araldite® Kit K134	Part A	100
Araldite® Kit K134	Part B	40

Gel Time, Viscosity and Curing

Usable Life	At 25°C	100g	60-70 minutes
Initial Mix Viscosity	At 25°C	TM03	4000-7000 mPa.s
Minimum Cure Temperature	At 20°C		
Minimum Cure Time	At 20°C	TM09	24 hours
	At 40°C	TM09	6 hours
	At 80°C	TM09	20 minutes
	At 120°C	TM09	10 minutes

Processing and Storage (Guideline Values)

Applications

This system can be applied manually by spatula, short-bristle brush or laminating hook; or mechanically by metering, mixing and glue spreading equipment. When the joint surfaces are rough, or when one part is to be inserted into another, adhesive should be applied to both surfaces to ensure complete coverage.
The Araldite® Kit K 134 system will cure without the application of pressure or heat at temperatures 20°C or above, however, heat can be applied to accelerate curing and will result in stronger more moisture resistant joints.

Mixing

Mixing must be thorough and it should be continued until resin and hardener are a uniform white colour.

Surface Pretreatment

To obtain completely satisfactory and durable joints, the surfaces to be bonded must be properly pre-treated. All traces of dirt, oil and grease must be removed using a solvent such as EPOSOLVE 70 (Huntsman Advanced Materials), acetone, trichloroethane, etc; methylated spirits, petrol or paint thinners should never be used (see note below).
Maximum bond strength is obtained by mechanically abrading or chemically etching the surface to provide a better key for the adhesive. Mechanical abrading must be followed by a second, thorough degreasing treatment.
Note: Most solvents are highly flammable. The prescribed safety precautions must always be taken.

Curing

To determine whether crosslinking has been carried to completion and the final properties are optimal, it is necessary to carry out relevant measurements on the actual object or to measure the glass transition temperature. Different gel and cure cycles in the customer's manufacturing process could lead to a different degree of crosslinking and thus a different glass transition temperature.

Storage Conditions

Store the components in a dry place at RT, in tightly sealed original containers. Under these conditions, the shelf life will correspond to the expiry date stated on the label. After this date, the product may be processed only after reanalysis. Partly emptied containers should be tightly closed immediately after use.

For information on waste disposal and hazardous products of decomposition in the event of a fire, refer to the Material Safety Data Sheets (MSDS) for these particular products.

Mechanical and Physical Properties (Guideline Values)

Determined on standard test specimen at 23°C. Cured for 24h/RT + 6h/80°C

Glue Line Colour			
Tensile bond Strength	5 days at 20°C	ISO 4587	12-18N/mm^2
	30 minutes at 100°C	ISO 4587	22-28N/mm^2
Climbing drum Peel Strength	30 minutes at 100°C	DIN 53289	30-50N/mm^2
Flexural peel strength	30 minutes at 100°C	EMPA	310 N
Modulus of Elasticity	30 minutes at 100°C	ISO 178	3500-4000N/cm^2
Electrolytic Corrosion	30 minutes at 100°C		A1 Grading

1N/mm^2 = 1 MPa = 145 psi)

Industrial hygiene

Mandatory and recommended industrial hygiene procedures should be followed whenever our products are being handled and processed. For additional information please consult the corresponding Safety Data Sheets and the brochure "Hygienic precautions for handling plastics products".

Handling Precautions

Safety precautions at workplace:	
protective clothing	Yes.
gloves	Essential.
arm protectors	Recommended when skin contact likely.
goggles/safety glasses	Yes.
respirator/dust mask	Recommended.
Skin protection:	
before starting work	Apply barrier cream to exposed skin.
after washing	Apply barrier or nourishing cream.
Cleaning of contaminated skin	Dab off with absorbent paper, wash with warm water and alkali-free soap, then dry with disposable towels. Do not use solvents.
Clean shop requirements	Cover workbenches, etc. with light coloured paper. Use disposable beakers, etc.
Disposal of spillage	Soak up with sawdust or cotton waste and deposit in plastic-lined bin.
Ventilation:	
of workshop	Renew air 3 to 5 times an hour.
of workplace	Exhaust fans. Operatives should avoid inhaling vapors.

First Aid

Contamination of the **eyes** by resin, hardener or casting mix should be treated immediately by flushing with clean, running water for 10 to 15 minutes. A doctor should then be consulted.
Material smeared or splashed on the **skin** should be dabbed off, and the contaminated area then washed and treated with a cleansing cream (see above). A doctor should be consulted in the event of severe irritation or burns. Contaminated clothing should be changed immediately.

For more detailed information please read Huntsman Advanced Material safety data sheets for the indivuidual products.

Note

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