

Technical Data Sheet

Properties:

AKEPOX® 3000 is a gel-like, solvent-free, two-component adhesive based on an epoxy resin containing a modified special hardener. The product characterized by the following properties:

- very fast hardening
- easy dosing and mixing by use of cartridge system
- extremely low shrinkage during the hardening process and therefore low tensions in the bonding layer
- good dimensional stability of the bonding layer
- small tendency to fatigue
- very good alkali-stability, thus the adhesive is very well suited to bond concrete
- excellently suited for bonding gas-impermeable materials as it is a solvent-free product
- good electrical insulating property
- suited for bonding materials which are sensitive to solvents (e.g. expanded polystyrene, acrylonitrile butadiene styrene)
- the product is not liable to crystallize, therefore no problems in storing and processing
- classification according to the Berufsgenossenschaft der Bauwirtschaft (Accident Prevention and Insurance Association of the German Building Industry): GISCODE: RE 01

Application Area:

AKEPOX® 3000 is an universal adhesive for bonding natural and artificial stones, metal (iron, steel, aluminium, copper), wood, ceramics and various synthetic materials (rigid PVC, polyester). Due to its jelly-like consistency the product has a good vertical stability. The rapid hardening time makes the product suitable for assembly work, bonding of letters and dowels. The product is not suited for bondings under permanent wet conditions, slot reinforcements as well as polyolefin (polyethylene, polypropylene), silicone, fluorohydrocarbons (Teflon), flexible PVC, flexible polyurethane and butyl rubber.

Instructions for Use:

- without mixing nozzle: dosing apparatus only
 - with mixing nozzle: dosing and mixing apparatus at the same time
1. Thoroughly clean and slightly roughen surfaces to be bonded.
 2. Remove the clasp from the cartridge and put the cartridge in the gun; work the grip until material emerges from both openings; then eventually screw up the mixing nozzle.
 3. Both components must be thoroughly mixed when working without mixing nozzle.
 4. The mixture remains workable for approx. 3 - 4 minutes (20°C). After approx. 30 - 60 minutes (20°C) the adhesive has a good initial stability, after 3 - 5 hours (20°C) approx. the bonding may be stressed. Maximal stability after 24 hours (20°C).
 5. Tools can be cleaned with AKEMI® Nitro-Dilution.
 6. The hardening process is accelerated by heat and delayed by cold.
 7. Empty the container fully before disposing of it.

Special Notes:

- AKEPOX® 3000 is not suited for bondings which are exposed to permanent moisture.
- Metallic surfaces should be ground in a short interval before bonding to avoid a decrease in adhesion.

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- An adhesive which is already thickened or just gelling should not be used anymore.
- At temperatures below 10°C the product should not be used anymore as there is no sufficient hardening.
- The hardened adhesive is liable to yellowing, especially when exposed to sunlight.
- The hardened adhesive can no longer be removed by means of solvents. This can only be achieved mechanically or by applying higher temperatures (> 200°C).
- If the resin has been correctly worked it presents no hazard to health when the hardening process is completed.
- For cartridges use AKEMI® original mixing nozzles only.

Technical Data:

1. Colour (comp. A + B) 3000: milky white
3000 Mini Quick: milky white, black
2. Density (comp. A + B): approx. 1.16 g/cm³
3. Working time:

at 10°C: 8 – 9 minutes	
a) mixture of 75 g component A + 75 g of component B:	at 20°C: 3 – 4 minutes
	at 30°C: 2 – 3 minutes
	at 40°C: 1 – 2 minutes
b) at 20°C and varying amounts:	
15 g comp. A + 15 g comp. B}	3 – 4 minutes
40 g comp. A + 40 g comp. B}	
75 g comp. A + 75 g comp. B}	
250 g comp. A + 250 g comp. B}	
4. Hardening process (shore D-hardness of a 2 mm layer at 20°C):

<u>15 min</u>	<u>30 min</u>	<u>60 min</u>	<u>2 hrs</u>	<u>3 hrs</u>	<u>4 hrs</u>	<u>5 hrs</u>	<u>24 hrs</u>
30	35	36	43	48	50	52	63

Storage:

2 years approx. under cool conditions in the firmly closed original container.

Health & Safety:

Read Material Safety Data Sheet before handling or using this product.

Important Notice:

The above information is based on the latest stage of development and application technology. Due to a multiplicity of different influencing factors, this information – as well as other oral or written technical advises – must be considered as non-binding hints. The user is obliged in each particular case to conduct performance tests, including but not limited to trials of the product, in an inconspicuous area or fabrication of a sample piece.

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