Technical Instruction Sheet

Characteristics:

AKEPOX® 3020 Quick Bond is a still-flowing, solvent-free 2-component adhesive based on an epoxy resin containing a modified special hardener. The product is distinguished by the following qualities:

- can be stressed very quickly due to it´s high initial stability
- very rapid hardening
- easy measuring and mixing by use of cartridge system
- extremely low shrinkage during the hardening process and therefore low tensions in the bonding layer
- high elasticity and viscosity of the bonding layer
- a small tendency to fatigue
- a 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)
- good adhesion on slight humid stones
- only limited weather resistance of the bonding outdoors
- the product is not liable to crystallize, therefore no problems in storing and processing.

Field of Application:

AKEPOX® 3020 Quick Bond is an universal adhesive for bonding natural and cast stones, concrete, metal (iron, steel, aluminium, copper), wood, ceramics, glass and various synthetic materials (GRP, polystyrene, rigid PVC, polyester). The rapid hardening time, very good contact adhesion and still-flowing consistency make the product suitable for assembly and reinforcement work as well as for bonding of dowels. Materials s.a. polyolefin (polyethylene, polypropylene), silicone, fluorohydrocarbons (Teflon), flexible PVC, flexible polyurethane and butyl rubber cannot be bonded with AKEPOX® 3020 Quick Bond.

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. 3-5 min (20°C). After 20-40 min (20°C) the adhesive has a good initial stability, after 2-4 hours (20°C) the bonding may be stressed. Maximal stability after 7 days.
5. Tools can be cleaned with AKEMI® Nitro-Dilution.
6. The hardening process is accelerated by heat and delayed by cold.
7. If stored in cool place, approx. shelf life is 1 year.

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Special Hints:

- AKEPOX® 3020 Quick Bond 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.
- Use AKEMI® Liquid Glove to protect your hands.
- 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
- Once hardened, the adhesive can no longer be removed by solvents. Removal is only possible mechanically or by higher temperatures (> 200°C).
- When worked correctly, the hardened adhesive is not damaging to health.
- Use AKEMI® original mixing nozzle only.

Safety Measures: see EC Safety Data Sheet

Technical Data:

1. Component A+B — Colour: black; Density: approx. 1.72 g/cm³

2. Working Time

a) mixture of 75 g of component A + 75 g of component B
- at 10°C: 6 - 10 minutes
- at 20°C: 3 - 5 minutes
- at 30°C: 2 - 3 minutes
- at 40°C: 1 - 2 minutes

b) at 20°C and different quantities

15 g of component A +	15 g of component B}	
40 g of component A +	40 g of component B}	
75 g of component A +	75 g of component B}	3 - 5 minutes
250 g of component A +	250 g of component B}	

3. Mechanical properties

Bending strength DIN EN ISO 178:	15-20 N/mm²
Tensile strength DIN EN ISO 527-1:	5-7 N/mm²

4. Shelf life: 1 year approx. if stored in cool place free from frost in its tightly closed original container.

Notice: The above information is based on the latest stage of technical progress. It is to be considered as a non-binding hint and does not release the user from a performance test, since application, processing and environmental influences are beyond our realm of control.

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