Technical Data Sheet

Properties:

AKEMI® Hyperclear is a gel-like, solvent-free two-component reaction-resin system. The product is distinguished by the following properties:

- good stability to yellowing
- transparent, colourless
- solvent-free
- no discolouring in the contact area
- good stability due to gel-like consistency
- low shrinkage, therefore only minimal tension within the bonding joint
- fast working time and cure time
- 1:1 mixing ratio
- great bonding to various substrates

Application Area:

AKEMI® Hyperclear is mainly used in the stone and slab working industry for bonding and glueing of natural stone (marble, granite, quartzite), Porcelain and ceramics (Dekton®, Neolith® etc.) as well as artificial stone or building material (terrazzo, concrete). It is possible to treat very light-coloured respectively white natural stone because AKEMI® Hyperclear is a system with a high stability to yellowing. Due to its gel-like, smooth consistency the product has a good stability in vertical areas, furthermore thin bonding joints can be made. In addition other materials like for example plastics, paper, wood, glass and the more can be bonded with AKEMI® Hyperclear. Due to the variety of materials existing we recommend a testing bond. Polyolefins like polyethylene, poly-propylen, teflon (e.g. PTFE), silicone and other materials containing plasticisers (e.g. soft PVC) are not suited to be bonded with AKEMI® Hyperclear.

Instructions for Use:

The surfaces to be bonded must be thoroughly cleaned (free of dust, dirt and grease), slightly roughen smooth surfaces.

1. 100 g of component A are to be homogenously mixed with 100 g of component B. The mixing ratio must be strictly observed to. A surplus of component A has the effect of a plasticizer and may in addition slowly result in yellowing.
2. Colouring is possible by adding up to 2% of polyester colouring pastes.
3. The mixture remains workable for approx. 5-8 minutes (20°C), after 1 hour (20°C) the bonded parts may be moved, after 4 hours they may be further processed. Max. stability after 24 hours.
4. Clean tools immediately with AKEMI® Universal Dilution. Once hardened, the product can only be removed mechanically.
5. Warmth accelerates, cold delays the hardening process.

Special Notes:

- Only conditionally suitable in areas with permanent moisture or in direct contact with water.
- The optimal mechanical and chemical properties can only be attained by adhering to the exact mixing proportions; excess adhesive has the effect of a plasticizer and may slowly cause yellowing. Surplus of component A has the effect of a plasticizer and may slowly result in yellowing; low surplus of component B (max. 5%) does not have a negative influence on the product properties.
- The surfaces to be bonded must be dry, clean and free of grease. Humidity results in a formation of bubbles in the glue and therefore in a loss of stability.
- The product is not to be used at temperatures below 5°C, because it

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will not sufficiently harden.
- The bonding should not be permanently exposed to temperatures above 60°C, for a short period of time temperatures up to 100°C are possible.
- The hardened product can be removed only mechanically.

Technical Data:

Colour: colourless, opaque

Density: component A: 1.10 g/cm³
component B: 1.17 g/cm³

Hardening process (Shore D hardness) at 20°C:

1 hr	2 hrs	3 hrs	4 hrs	24 hrs
40	60	65	70	78

Mechanical properties:
Bending strength 50 – 60 N/mm² (DIN EN ISO 178)
Tensile strength 20 – 30 N/mm² (DIN EN ISO 527)

Storage:

Approx. 12 months under cool conditions (<25°C) in the firmly closed original container. Use open containers as quick as possible.

Health & Safety:

Read 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 trails of the product, in an inconspicuous area or fabrication of a sample piece.

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