Technical Data Sheet

Properties:

AKENOVA® ELASTIC 100 is a stress-compensating 1-component adhesive based on polyhybrid technology which hardens by humidity.

The product is characterized by the following properties:
- very high initial adhesion
- vertical and horizontal bonding
- very high bonding strength
- elastic bonding joint for higher stress equalisation
- no bleeding in the marginal zone on natural stone, as it is free of plasticisers and solvents
- good workability
- good smoothability
- almost no odour
- VOC-free
- silicone-free
- free of isocyanate and tin
- temperature resistant from -25°C up to +80°C (short-term 120°C)
- resistant to UV, humidity and weathering
- suitable for indoors and outdoors
- paintable
- very low emission (GEV EMICODE® EC1^{PLUS})
- emission class A+ (confirmed by an external testing institute)

Application Area:

AKENOVA® ELASTIC 100 is an innovative adhesive which is excellently suitable for stress-compensating, non-polishable bondings of natural and artificial stone such as granite, quartzite, sandstone, terrazzo and the like with mineral, metallic or wooden surfaces (e.g. bonding of natural stone slabs or tiles). It particularly facilitates the bonding of larger components due to its high initial strength (e.g. assembly of mirrors etc.). After hardening the product has a very good adhesion on silicate surfaces (e.g. granite, concrete, glass) as well as on SPC (Stone Polymer Composite). For non-silicate surfaces and for bondings exposed to humidity, it is necessary to apply a primer (see primer table).

Instructions for Use:

1. Contact surfaces must be clean, free of grease and dust. For natural and artificial stone, tiles, ceramics, glass, non-painted wood and metal use AKEMI® Cleaner A; for plastics and painted surfaces use AKEMI® Cleaner.
2. Working temperature +5°C up to +35°C.
3. On larger surfaces the adhesive beads are applied parallel to each other in the required thickness. The distance of the beads should be chosen in such a way that no continuous layer is formed after grouting, otherwise hardening is greatly delayed.
4. Parts should be bonded within 15 minutes, smoothen joints with AKEMI® Smoothing Agent.
5. Skin formation time 15 to 25 minutes. It depends on atmospheric humidity, moisture content of bonded parts, ambient temperature and temperature of the components. Complete hardening also depends on the layer thickness: 2.5 to 3 mm on the 1st day.

   Attention: with high film thicknesses, curing may be considerably delayed. In the case of thin bonding joints or when bonding vapour-tight materials (e.g. metal, ceramics, glass), or in the case of bonding where there is only a small surface for air humidity to attack, the bonding surfaces should be moistened shortly before

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bonding. Otherwise, curing to the core is greatly delayed and can take several weeks.

6. Tools can be cleaned with AKEMI® Cleaner A or I.

Special Notes:

- Only for professional use.
- Professional equipment with a high gear ratio should be used for the application.
- Before application, ensure that the product is compatible with the materials to be bonded and that no alteration (e.g. discolouration) or damage will occur. This also includes materials that are in the area of influence of the reaction products (vapours).
- If other products (e.g. sealants, colours, paints, adhesives, cleaners) are used in the area of influence after application of AKENOVA® ELASTIC 100, it must also be ensured that no changes or damage may occur to AKENOVA® ELASTIC 100.
- No or only limited adhesion on plasticised plastics, PE, PP, PTFE; in this case a preliminary test is necessary.
- Hardening can be improved by moistening parts to be bonded.
- Exposure to temperatures above 80°C may cause discolouration of the bonding surface.
- Hardened sealant can only be removed mechanically, not yet hardened sealant can be removed with AKEMI® Cleaner A or I, depending on the surface.
- For proper waste disposal, the container must be completely emptied.
- Recycling in accordance with the guidelines of EU Decision 97/129 EC on the Packaging Directive 94/62/EC.

Primer table:

In general, the product shows good adhesion properties on bondings not being under permanent wet conditions. If the bonding is exposed to moisture, especially on absorbent substrates, prior treatment with a suitable primer is mandatory.

Surface	Recommendation AKEMI® Primer	
	Without moisture load	With moisture load
Silicate stone (e.g. granite, sandstone), ceramics (e.g. Dekton®), glass, tile, fine stoneware	w/o primer	w/o primer
Limestone	w/o primer	AP 10
Marble	w/o primer	AP 70
Concrete	w/o primer	AP 70
Quartz	w/o primer	AP 10
Solid Surface	w/o primer	AP 30
Plexiglass	w/o primer	AP 30
Bare iron	w/o primer	AP 20
Galvanised iron	w/o primer	AP 20
Bare aluminium	w/o primer	AP 20
Anodised aluminium	w/o primer	AP 20
Brass	w/o primer	AP 20
Stainless steel	w/o primer	AP 20

Technical Data:

Colours: white (CC1130), grey (CC1830), black (CC1030), beige (CC1720)

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Consistency:	paste like
Density (20°C):	approx. 1.4 g/cm³
Skin formation time:	15 - 25 min
Final hardness (DIN EN ISO 868:2003):	approx. 64 Shore A
Hardening (20°C, 50% Rel. air humidity):	approx. 3 mm after 24 hrs
Tensile strength (DIN EN ISO 527-3 type 5):	3.5 - 4.0 N/mm² (508 - 580 psi)
Elongation at break (DIN EN ISO 527-3 type 5):	180 - 200%
Shrinkage:	2.5 - 3.0%
Initial strength:	approx. 400 kg/m²

Storage: If stored in dry and cool condition (5-25°C/41-77°F) in its closed original container at least 18 months from production.

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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