

**Technical Data Sheet**

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**Properties:**

AKEMI® Marble Fillers 1000 Transparent styrene-reduced are highly liquid or knife-grade 2-component products based on unsaturated polyester resins dissolved in styrene. The products are distinguished by the following qualities:

- wide field of application due to different consistencies
- fast hardening (20 - 60 minutes)
- excellently polishable
- very good adhesion on natural stones also at higher temperatures (60 - 70°C; in case of low exposure to strain: 100 - 110°C)
- resistant to water, petrol and mineral oils
- styrene-reduced, therefore not subject to the self-service regulation

**Application Area:**

AKEMI® Marble Fillers 1000 Transparent styrene-reduced are mainly used in stone processing industry for bonding natural stone, reinforcement of natural stone slabs with glass fibre products (laminating) and forming of rock substitutes with crushed rocks and sand.

Consistency:

- Transparent: medium viscosity
- Transparent extra liquid: low viscosity
- Transparent L-Special: gel-like consistency for vertical applications

**Instructions for Use:**

1. The surface to be treated must be clean, completely dry and roughened.
2. Colouring is possible by adding AKEMI® Polyester Colouring Pastes or AKEMI® Polyester Colouring Concentrates up to max 5 %. AKEMI® Marble Filler 1000 transparent and AKEMI® Marble Filler 1000 transparent L-special can be diluted with AKEMI® Marble Filler 1000 transparent extra liquid in any mixing ratio.
3. Add 1 to 4 g of white hardener paste to 100 g of filler (4 to 5 cm of paste pressed out of the screw tube correspond to 1 g).
4. Mix both components thoroughly. The mixture can be worked for about 3 to 16 minutes (20°C), depending on the product.
5. After 20 to 60 minutes (depending on the product) the treated parts can be further processed (grinding, milling, drilling).
6. The hardening process is accelerated by heat and delayed by cold.
7. Tools can be cleaned with AKEMI® Nitro-Dilution.

**Special Notes:**

- Use AKEMI® Liquid Glove to protect your hands.
- Hardener portions higher than 4 % reduce adhesion and deteriorate surface drying.
- Hardener portions less than 1 % and low temperatures (below 5°C) considerably delay hardening.
- The bonding layers should be as thin as possible (< 1 mm) due to shrinkage (approx. 5-8 %) caused by the high reactivity of the filler and development of heat during the hardening process.
- Non-durable resistance of bondings which are frequently exposed to humidity and frost.
- Only moderate adhesion on fresh, alkaline building materials (e.g. concrete, concrete bricks).
- The hardened filler tends to yellowing.

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- Once hardened, the filler can no longer be removed by solvents. Removal is only possible mechanically or by higher temperatures (> 200°C).

**Technical Data:**

Colour: honey yellow  
Density: 1.05 – 1.15 g/cm<sup>3</sup>

Working time (min.):

a) at 20°C	<u>Transparent</u>	<u>Extra Liquid</u>	<u>L-Special</u>
1% of hardener:	12 - 14	9 - 11	8 - 10
2% of hardener:	6 - 8	7 - 9	5 - 6
3% of hardener:	5 - 6	5 - 6	4 - 5
4% of hardener:	4 - 5	4 - 5	3 - 4
b) with 2% of hardener:			
at 10°C:	13 - 16	12 - 14	12 - 14
at 20°C:	6 - 8	7 - 9	5 - 6
at 30°C:	4 - 5	4 - 5	3 - 4

Mechanical Properties:

Tensile strength DIN 53455: 40 - 50 N/mm<sup>2</sup>  
Bending strength DIN 53452: 100 - 110 N/mm<sup>2</sup>

**Storage:**

If stored in dry and cool condition (5-25°C/41-77°F) in its closed original container at least 12 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 trials of the product, in an inconspicuous area or fabrication of a sample piece.