

Technical Instruction Sheet

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Characteristics:

AKEMI® Stone and Marble Adhesive MS 76 (available liquid, still flowing, knifegrade) is a 2-component product based on unsaturated polyester resins dissolved in styrene. The product is distinguished by the following properties:

- good working properties and application on horizontal and vertical areas due to liquid, still flowing resp. knifegrade consistency
- fast hardening (20 - 40 minutes)
- good working properties (grinding, milling, drilling)
- very good adhesion on metal (iron, steel, aluminium), wood, stone and various plastics (e.g. rigid PVC, GFK) also at higher temperatures (up to 100°C approx.)
- resistant to water, petrol and mineral oils.

Field of Application:

Stone and Marble Fillers MS 76 are mainly used in the stone processing industry and trade for the bonding of natural and cast stones, iron, steel or aluminium, wood, or plastics together or among each other. MS 76 liquid is also used for reinforcing tasks for kitchen tops, tables etc. and for sealing cracks and joints in screed flooring and concrete. The products are suited for indoor use and have a good thermal stability of approx. 60-70°C for bonded parts exposed to mechanical stress, and approx. 100-110°C for bonded parts not exposed to mechanical stress. The advantage of these products is the short hardening time. MS76 is only for interior application because it is restricted weather-resistant. Therefore, for exterior applications we recommend AKEMI AKEPOX® adhesives (epoxy based).

Instructions for Use:

1. The surface to be treated must be clean, completely dry and slightly roughened.
2. Add 1 to 3 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).
3. Mix both components thoroughly. The mixture can be worked for about 4 to 14 minutes (20°C).
4. After 20-40 minutes (20°C) the treated parts can be further processed and transported; after 1 hour bonded parts can be exposed to strain.
5. To use MS76 liquid as a cast resin for filling and repairing cracks in screed flooring or joints, first fill in and smooth the surface with a spatula. It may be necessary to widen the cracks beforehand or use screed repair brackets. In order to improve adhesion for additional layers of chemical products, sprinkle quartzite sand on the material before MS76 hardens.
6. Wait for 60 minutes before further floor restoration (e.g. application of adhesives or compensation fillers).
7. The hardening process is accelerated by heat and delayed by cold.
8. Tools can be cleaned with AKEMI® Nitro-Dilution.

Special Hints:

- Use AKEMI® Liquid Glove to protect your hands.
- Hardener portions higher than 3 % reduce adhesion and deteriorate surface drying.
- Hardener portions less than 1 % and low temperatures (< 5°C) considerably delay hardening.
- For stone floor restoration of big cracks or joints use MS76 knifegrade
- Discard any adhesive that is already thickened or just gelling.
- Apply adhesive immediately following grinding of metal surfaces to guarantee good adhesion.
- The bonding layers should be as thin as possible (< 2 mm) due to shrinkage (approx. 2-3 %) caused by the high reactivity of the filler and development of heat during the hardening process.

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- Limited durability of bonding, which are frequently exposed to humidity and frost.
- Moderate adhesion on fresh, alkaline building materials (e.g. concrete, concrete bricks).
- Once hardened, solvents can no longer remove the filler. Removal is only possible mechanically or by higher temperatures (> 200°C).
- Being worked properly, the hardened filler is generally recognized as not injurious to health.

Safety Measures: see EC Safety Data Sheet**Technical Data:**

Colour: grey
Density: approx. 1.63 g/cm³(still flowing, knifegrade)
approx. 1.36 g/cm³ (liquid)

Working time / min.:

a) at 20°C

still flowing/knifegrade		liquid
1% of hardener:	8 - 10	14-16
2% of hardener:	5 - 6	7-9
3% of hardener:	4 - 5	5-6
cartridge	5 - 6	

b) with 2% of hardener

still flowing/knifegrade		liquid
at 10°C:	10 - 12	12-14
at 20°C:	5 - 6	7-9
at 30°C:	3 - 4	3-4

Mechanical Properties:

Tensile strength DIN 53455: 15 - 25 N/mm²
Bending strength DIN 53452: 40 - 50 N/mm²

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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