

## Technical Data Sheet

Page 1 of 3

**Properties:**

AKEMI® Stone Impregnation is a ready-for-use product based on modified oligomeric alkylalkoxysiloxanes. The product is absorbed by the capillary forces of the stone and can therefore penetrate especially deep. A polysiloxane results from the catalytic reaction. In addition, a reaction with the silicate substance of the stone takes place which results in high efficiency for several years. The product is characterized by the following qualities:

- extreme reduction of water and dirt absorption during periods of moisture
- fast liberation of humidity during dry periods due to high vapour diffusibility
- maintenance of breathing properties because there is no surface layer
- resistance to UV radiation
- the colour of the stone is normally not enhanced (preliminary test)

**Application Area:**

AKEMI® Stone Impregnation is used for a water- and dirt-repellent treatment of absorbent mineral substances s.a. natural and artificial stone (polished ground or rough surfaces of marble, limestone, granite, gneiss, porphyry, cotto, terrazzo, unglazed ceramic tiles etc.) It is also very well suited for bricks, sand-lime bricks, concrete and mineral-based plaster.

**Instructions for Use:**

Disregarding the processing guidelines can lead to irreparable damage!

1. Cleaning:  
The surface must be clean, absolutely dry and free from all layers. Depending on the type of stone and the degree of soiling, the following AKEMI® products are recommended: Stone Cleaner, Acid Cleaner, Concrete Film Remover, Rust Remover, Intensive Cleaner, Algae and Moss Remover POWER or LONGLIFE, Wax Stripper, Oil and Grease Remover Paste and Graffiti-Remover. Please observe the respective Stone Care Recommendations and Technical Data Sheets. In any case, after cleaning rinse well with water. Before the stone is given its protective treatment, it must be completely dry. As a rule, this is the case after 1 - 2 days at the earliest.
2. Preparation of a sample area:  
Before starting work, it is advisable to prepare a sample area in an inconspicuous place of a suitable size in order to examine the efficiency of the impregnation, to evaluate the appearance of the treated object (colour enhancement) and to ascertain the material consumption as exactly as possible.
3. Impregnation procedure:
  - a) Optimum conditions for an impregnation are a soil and ambient temperature of 15 - 25°C and subsequent 24-hour protection from rain. The stone must not be warmed up by an underfloor heating or direct sunlight.
  - b) Crack up to 3 mm are bridged by the impregnation.
  - c) For absorbent surfaces, a wet-on-wet application twice is recommended.

TDS 06.22

**Technical Data Sheet**

- d) A suitable application mop, e.g. AKEMI® Impregnation Application Mop or, for smaller areas, AKEMI® Impregnation Application Pad, is recommended for professional, even application of the product. Airless spraying equipment with low pressure (max. 1 bar overpressure) is suitable for the application on facades using the flooding (multiple-coat) method and a jet distance of 5 - 10 cm (condition: tubes and seals must be resistant to solvents). The impregnation is applied until it runs down 40 - 50 cm.
- e) Approx. 20 minutes after application, respectively before drying of the impregnation on the surface, any excess which has not been absorbed by the stone has to be completely removed with suitable cloths or e.g. AKEMI® Finish Mop, so that no residue remains on the surface. Polished surfaces must additionally be polished again until any blooming on the surface is removed.
- f) If the desired effect is not achieved or if the impregnation has been applied unevenly, it is possible to apply the impregnation once again. The water-repellent effect develops after approx. 24 - 48 hours, full protection after 1 week approximately.
- g) Tools can be cleaned with AKEMI® Cleaner A.

**Special Notes:**

- Special protective measure in case of spray application: avoid formation of aerosols and risk to third parties. Do not breathe vapours (protective mask).
- For floor coverings and stairs, especially outdoors, ensure sealing of the reverse side and lateral surfaces of the stone, so that rising moisture cannot penetrate into the stone. In this context we recommend the use of AKEMI® Anti-Stain Coating 2015 to seal the reverse side and the lateral surfaces.
- An impregnation with AKEMI® Stone Impregnation prevents the stone from staining respectively the development of these spots will be delayed considerably. Should they nevertheless appear, the surface can be cleaned much more easily.
- Unsuitable or aggressive cleaning agents as well as pressure washers may attack the impregnation and the stone. We recommend to use a pH-neutral cleaning agent, e.g. AKEMI® Mild Stone Soap or AKEMI® Crystal Clean for the regular cleaning.
- Product which has been inaccurately applied, can possibly be removed with AKEMI® Impregnation Remover.
- Existing joints must be tested in view of their resistance to solvents. In case wetting agents had been used to smoothen joint fillers, they must be removed prior to application of the impregnation.
- AKEMI® Stone Impregnation is not suited for glazed and non-absorbent surfaces or plaster.
- A surplus of the product causes blooming and spotting.
- When using the product, wear suitable protective clothing and protective goggles and gloves made of nitrile rubber.
- Surfaces to be treated must be protected against direct solar radiation.
- Protect surfaces which are not resistant to solvents, e.g. window screens, parts to be varnished or objects in the area of working (cars, gardens).

**Technical Data Sheet**

Page 3 of 3

- An evaluation of the impregnation according to its water repellent effect is not sufficient because this effect shows on the surface only. The water-repellent effect can be diminished or be invisible due to dust settings.
- The colour of most stone surfaces will not or only slightly change. On quartzite and serpentine a clearly recognizable colour enhancement occurs. Therefore, it is recommendable to test on a sample piece or an inconspicuous area.
- On some natural stones like e.g. Nero Assoluto or Nero Impala the stone-imminent structures may be stronger intensified than the residual stone surface if treated with AKEMI® Stone Impregnation. This might be seen as staining, however, the colour intensification is not a product defect but is attributed to the characteristics of the stone.
- 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.

**Technical Data:**

Coverage:	approx. 5 - 20 m <sup>2</sup> /liter, depending on the absorptive capacity of the stone
Colour:	colourless
Density:	approx. 0.76 g/cm <sup>3</sup>

**Storage:** If stored in dry and cool condition (5-25°C/41-77°F) in its closed original container at least 24 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.

TDS 06.22