Technical Instruction Sheet

+Characteristics:

AKEMI® Stain Repellent Nano-Effect is a ready to use weather resistant and non-yellowing impregnation based on high-quality organic active substances. The product is absorbed from the stone due to the capillary forces, however, without closing the pores. The product shows the following properties:

- protection within a short period of time
- strong trickle down effect
- no or very slight colour deepening effect
- very good oil- and grease repellent effect
- very good reduction of water and dirt absorption during periods of moisture
- rapid liberation of humidity during dry periods due to high vapour diffusibility
- oil- and grease repellent effect
- noticeable low adhesion of colours on treated stone surfaces – anti-graffiti effect
- maintenance of breathing properties because there is no surface layer
- tack-free hardening
- resistance to UV radiation
- after being hardened the product is harmless to health upon contact with food products – certified by the “LGA Nürnberg”
- no release of methanol during hardening

Field of Application:

AKEMI® Stain Repellent Nano-Effect is used for water-, grease- and oil repellent treatment of mineral building material, e.g. natural and cast stones (polished ground or rough surfaces of marble, lime stone, granite, gneiss, porphyry, cotto, terrazzo, fine stoneware, concrete unglazed ceramic tiles etc.) The product is especially used in kitchens (coatings, working plates), bathrooms (wash tables, marble tiles), for tables, window-sills, tile joints, facades (anti-graffiti).

Instructions for Use:

1. Cleaning:

The surface must be clean, totally 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, Concrete Film Remover, Rust Remover, Wax Stripper, Algae and Mildew Remover, Oil and Grease Remover Paste, Graffiti-Remover. Please pay attention to the respective technical information sheets. In any case, after cleaning rinse well with water Before the stone is given its protective treatment, it must be totally dry. As a rule, this is the case after 1-2 days at the earliest.

2. Preparation of a sample area

Before starting we recommend to prepare a sample area of 1-2 m² 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. Impregnating procedure

a) Shake well before use. The best conditions for impregnating is a temperature of 15-25°Cand protection from humidity for approx. 2-3 hours. The stone must not be warmed up by an underfloor heating or direct sunlight.
b) The impregnating effect is sufficient for fissures which are smaller than 0.3 mm.
c) In general, one to two appliances wet-in-wet are sufficient. In case of less absorbent surfaces we recommend to dilute with AKEMI® Nitro-Dilution in the ratio of 1:1.
d) Apply the product with a brush, paint roller or a mop. Airless spraying equipment with low pressure (max. 1 bar over pressure) is suitable for treating cades 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 a suitable cloth. 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 a few minutes, full protection after 2-3 hours.
g) Tools can be cleaned with AKEMI® Nitro-Dilution.

Special Hints:

- If stored at temperatures below 15 C° the product tendends to thicken. By warming to approx. 20°C it becomes fully liquid and homogenous.
- If the treated area is cleaned, a drying time of 1 – 2 days (depending on the temperature) is necessary.
- An impregnation with AKEMI® Stain Repellent Nano-Effect 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.
- Unsuited or aggressive cleaning agents as well as pressure washers may destroy the impregnation and the stone. We recommend to use only AKEMI® Mild Stone Soap for the regular cleaning. Even on stone surfaces impregnated with Stain Repellent Nano-Effect, it is possible that spots are forming after a long time exposure to aggressive products(e.g. juice, vinegar, alcohol or cosmetics). Yet, this formation is by far lower as on surfaces not being treated with Stain Repellent Nano-Effect. Spots can be avoided by immediately removing these aggressive products.
- 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.
- Stain Repellent Nano-Effect is not suited for glazed and non-absorbent surfaces or plaster.
- A surplus of the product causes blooming and spotting.
- Use AKEMI® Liquid Glove to protect your hands.
- Surfaces to be treated must be protected against direct solar radiation.

Technical Instruction Sheet

- Protect synthetic materials which are not resistant to solvents, e.g. window screens, parts to be varnished or objects situated in the area of working (cars, gardens).
- When applying the product correctly it is not hazardous for the health.
- For adequate waste disposal container must be completely emptied.

Safety Measures: see EC Safety Data Sheet

Technical Data:

Coverage:	approx. 1 - 15 m²/litres, depending on the absorptive capacity of the stone
Colour:	transparent yellowish
Density:	approx. 0.78 g/cm³
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.

TIS 04/06