

**Article No. 0314**

**Masonry Injection**

Hydrophobic treatment against rising damp in masonry work according to BBA Certificate Nr 85/1556

**Property profile:**

Aida AMI is an aqueous solution of potassium methyl silicate which is used in dilution for the hydrophobic treatment of cementitious building material. Under reaction with carbon dioxide (CO<sub>2</sub>) from the air, Aida AMI forms develops its water repellent properties. The active ingredient produced from the silicone building protection product is poly methyl silicic acid (CH<sub>3</sub>SiO<sub>3/2</sub>).

**Range of use:**

To be used for hydrophobic treatment/impregnation against rising damp in masonry work, with or without pressure (injection procedure, penetration procedure).

**Directions:**

Aida AMI is diluted with clean water (drinking/tap water). Give water into a container and stir Aida AMI well into it. In general Aida AMI is diluted in a mix ratio of 1 : 7.6 by volume with water. The degree of moisture penetration should not exceed 60% (at least 40% residual absorption capacity). For highly damp masonry work (up to 80% moisture penetration) the product should be diluted with less water (1: 4.3). In the case of extremely high moisture penetration up capillary saturation, thermal-convection must take place before injection work to bring the degree of moisture down to below 60%. In these cases, Aida AMI diluted 1 : 7.6 in water can be used.

**a. Preparatory works:**

Remove moist and/or damaged old render at least 80 cm above the area to be treated. Clean wall surfaces (e.g. by Rotec mist blasting) and scratch out soft joints approx. 2 cm in depth. Bind water dilutable salts with Aida Sulfatex Liquid. Apply a basic silicification with Aida Kiesol mixed 1:1 with water and Aida Sulfatex Grout. Then close excavations, open joints and defective spots with Aisit Undercoat Render.

**b. Borehole procedure:**

Place boreholes at a distance of 10-12 cm, depth the thickness of the wall minus 5 cm. Drill the holes horizontal or sloped in one or two rows depending on the substrate and procedure used.

**1. Injection Procedure (low pressure):**

To saturate masonry work in a low pressure procedure, use e.g. drive-in packers with a diameter of 12 mm and screw in a check valve. As an alternative, reusable injection packers

made of metal, No. 4201 with a light pressure valve can be used. Aida AMI, which has been diluted corresponding to porosity and dampness is pressed into the masonry work at 2-4 bar over a pressure hose with grab head using suitable equipment. Guide application values depending on the absorption capacity of the masonry are 0.3-0.4 kg of the diluted AMI.

**2. Penetration Procedure:**

For pressureless saturation through a borehole procedure, the diameter of the boreholes is 3 cm as a rule. If the material is applied in a funnel-absorption procedure through storage feeders (filling feeder or the Aida Kiesol proportioning cartridges), the borehole is made according to the diameter of the filling hose or the angular nozzle, generally between 20 and 25 mm. Saturation time: at least 1 day.

**c. Supporting measures:**

- One, resp. two silicification treatments as vertical waterproofing approx. 30 cm above the level of the boreholes.
- Salt treatment with Aida Sulfatex Liquid and/or Aida Salt Inhibitor
- Render coats with Aida Undercoat Render and Aisit Special Preparatory Mortar
- Aisit Restoration Render-WTA-, resp. Funcosil 1 L Restoration Render / Restoration Render W

All of these measures should be carried out according to the directions for working these products.

In floor connection areas, resp. upper surface of the ground, separate the render by a joint and, depending on requirements, waterproof floor surfaces. In plinth areas, use Aisit Universal Render.

**Notice:**

The minimum temperature during application should be +5°C. The diluted concentrate should be used the same day. After work has been concluded, make sure drying can take place through proper ventilation and temperature, e.g. air dehumidification according to the convection principle.

**Safety advice:**

Aida AMI in the packaged state and in dilution is highly alkaline corrosive. It is therefore necessary to always wear protective glasses when using this product. In case of contact with the skin, rinse with plenty of water. In case of contact with the

## Technical Information Sheet

eyes, immediately rinse with plenty of water and seek medical advice (lye causticization). Immediately change clothes that are contaminated with Aida AMI.

### Tools and cleaning:

- a) Drilling equipment, e.g. twist drill, drill SDS Plus or SDS Max
- b) For pressureless saturation, filling feeder, Art. No. 4174
- c) For a low pressure procedure:
  - Hübner Airless 1301 VP (b + m Vertrieb GmbH & Co, 88094 Oberteuringen)
  - Surface sprayer with coupling (pressure hose with grab head) or
- d) Metal injection packer No. 4201 with light pressure valve or the Aida Plastic Injector, Art. No. 4109, with large drive-in set, Art. No. 4104.
- e) Thermal-convection drying equipment (FEAD System) – Leasing from Remmers
- f) Dehumidifier (sorption dehumidifier) Munters Trocknungsservice GmbH, Hans-Duncker-Str. 14, 21035 Hamburg).

### Packaging, Application rate, Shelf-life:

#### Packaging:

4 kg (= 2.9 l) tin containers

#### Application Rate:

4 kg of Aida AMI are sufficient to produce 25 litres of ready-to-use product.

Apply approx. 0.15 kg concentrate per 10 cm wall thickness and per m wall length depending on porosity and moisture content of the substrate.

#### Shelf-life:

At least 12 months in unopened containers.

### Safety, ecology and disposal:

Further information concerning safety during transport, storage and handling as well as for disposal is found in the latest Safety Data Sheet.

The statements above are compiled from our field of production and according to the latest technological developments and application techniques. Since application and working are beyond our control, no liability of the producer can be derived from the contents of this information sheet.

Any statements made beyond the contents of this information must be confirmed in writing by the producer.

In all cases, our general conditions of sale are valid.

With the publication of this Technical Information Sheet all previous editions are no longer valid.