



# Hystoriqa Stone Technical Sheet

Reduces air pollution

Prevents the deposit of dirt on the surfaces

Non-toxic with 0 VOC

Protects the mineral building materials

Water-repellent



Application of the second layer after 3 hours



100/400 g/m<sup>2</sup>



Clean it with water



Protect from frost

Airlite Hystoriqa Stone is a water-repellent coating which becomes invisible after its application, specially formulated for the protection of mineral building materials. Airlite Hystoriqa Stone is non-toxic, with zero VOC, it stays stable in case of contact with liquid alkaline and acidic solutions and it eliminates the formation of salt deposits whilst maintaining the natural porosity of the substrate. Its formulation is the result of the aqueous dispersion of the water repellent photocatalytic nanoparticles of titanium dioxide. Its innovative formula gives the self-cleaning characteristic against the organic substances with which it comes into contact. The photocatalytic reaction occurs in the presence of sun-light and permits the reduction of air pollution decreasing both the concentration of NO<sub>x</sub> and SO<sub>x</sub>.

## Use

Airlite Hystoriqa Stone is an invisible water-repellent protective coating with low molecular weight and high penetration. It remains stable in case of contact with both acid and alkaline solutions. It prevents the penetration of water that contains salts, chlorides and organic acids on the treated surfaces and it allows the substrate to breathe without changing the porosity. Airlite Hystoriqa Stone should not change the appearance of the substrate when it dries however testing the product on a small area is recommended in order to determine the optimal quantity for the application.

## Application

The surfaces must be smooth and solid, free of dust, grease or any other contaminants which may prevent the adhesion of the product to the substrate. Airlite Hystoriqa Stone is ready for use and must be applied on clean and dry mineral absorbing surfaces without capillary absorption. The product can be applied only on cold surfaces that are not in direct sunlight, in case there are cracks larger than 0.3 mm, the surface must be plastered before the application. The product must be applied with airless spray pump in one or more layers, wet on wet, paying attention to the protection of the surrounding area especially the vegetation, plants, glasses etc.

Apply Airlite Hystoriqa Stone only on inorganic absorbing materials such as:

- burnt clay bricks and products
- mineral plasters
- terracotta
- absorbent natural stone
- tuff, cement or concrete

The necessary quantity of the product depends on the porosity and the absorption of the treated surfaces. The generally needed amount of the product is between 100 and 400 g / m<sup>2</sup>. The necessary amount must be defined with tests case by case.

## Scientific Tests

The laboratory tests allow the assessment of the main physical and chemical characteristics of the water-repellent and protective Airlite Hystoriqa Stone, formulated for the protection of mineral building materials. The tests were carried out on three samples of the Pietra Serena which is a variety of sandstone stone, before (t0) and after (t1) the application of the product. The results obtained by spectrophotometric analysis show the minimal difference between the color of the sample without the product and treated surface, which is brighter. However, the value of the parameter, is slightly higher than the conventionally accepted limit for visual perception, it is still acceptable. The water repellency of the treated surfaces is proved by measuring the static contact angle, which has a medium value of 155°±7°. The protective characteristics of Airlite Hystoriqa Stone have also been confirmed by absorption tests simulating capillary action, indicating a slow absorption of the treated sample, up to 168 hours of absorption.

## Storage

Retention period	4 months from the date of production
Conservation temperature	Between 0°C e 30°C
Available package	Containers of 5 and 10 litres

## Technical features

Aspect	White milky liquid
pH	4,5 ± 0.2
Yield	100/400 g/m <sup>2</sup>
Density	1000 kg/m <sup>3</sup>
Weight	1 kg/l
Solvent	Water
Boiling point	100°C
Freezing temperature	0° C

## Technical features

### Yield

It depends on the absorption and roughness of the surface and the tools used for the application.

In standard conditions, the yield is approximately 100/400 g/m<sup>2</sup> for one layer.

### Health and safety

For particularly vulnerable individuals the product can cause irritation in case of inhalation and/or absorption through the skin and/or contact with eyes and/or ingestion. The product does not require CEE labelling.

### Confection

Airlite Hystoriqa Stone is provided in containers of 5 or 10 litres.

### Precaution

Keep the containers close when it is not in use. Do not ingest it or inhale the aerosol that might develop during the application.

### Conservation

Airlite Hystoriqa Stone should be stored in dark and dry places.

### Duration

4 months, if it is stored appropriately, closed in the complete original packaging

### How to clean the tools

Clean the tools with water immediately after their use.

### Colors

Transparent.

### Way of application

Airlite Hystoriqa Stone can be applied in a temperature between 2°C and 35°C with airless spray pump.

### Caution

Airlite Hystoriqa Stone cannot be applied on painted surfaces. It cannot be used as additive of mortar cement, but it must be applied on plaster or on stone material as protection. Do not inhale the aerosol developed during the application.

### First aid

For further information, please make reference to the Security Sheet (MSDS).

**KEEP LOCKED UP AND OUT OF THE REACH OF CHILDREN.**

## Specification

Airlite Hystoriqa Stone is a photocatalytic water-repellent protection of mineral building materials with low molecular weight and high penetration that remains stable in case of contact with both acid and alkaline solutions. It must have the following characteristics: non-toxic with 0 VOC, pH between 4.3 and 4.7 and a density of 1.000 kg/m<sup>3</sup>.

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