



CONSOLIDANTE PIETRA

Ethyl-silicate based
consolidating primer for the
restoration of construction
materials



konstruktive • Leidenschaft



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PRODUCT DESCRIPTION

CONSOLIDANTE PIETRA is a single-component liquid formulation based on ethyl-silicate for the consolidation and restoration of construction materials.

A solution with excellent permeability to water vapour diffusion and high capillary penetration, suitable for absorbent building materials, natural stone, bricks, terracotta, degraded and crumbling plaster and stucco, frescoes, etc.

The neutral catalyst promotes the reaction between ethyl silicate and water from atmospheric humidity or the moisture in the capillary pores of building materials to form a glass-like silica gel binder, while the ethanol by product evaporates.

The product penetrates the substrate via capillary absorption consolidating and protecting from cracking due to rainwater penetration and the disruptive action of freeze-thaw cycles and weathering.

COMPOSITION

CONSOLIDANTE PIETRA is a solvent free single-component liquid formulation based on ethyl-silicate in ethanol emulsion.

MIXING AND APPLICATION

SUBSTRATE PREPARATION

The surfaces to be treated must be dry and free from capillary rising damp. Brush and clean surfaces thoroughly to remove all traces of dust, dirt, grease or presence of efflorescence. Thoroughly clean the surfaces by washing with water or by steam cleaning. When applying to friable materials where cleaning is not possible without a further loss of substance, consolidate the material with **CONSOLIDANTE PIETRA**, beforehand to prevent substance loss. Then the material can be cleaned and the main consolidation can take place.

Repair the substrate using appropriate repair mortar, caulking any cracks present larger than 1.0 mm thick. Prior to application, protect and cover all areas of glass, plastic, wood and marble or in general all surfaces sensitive to solvents.

It is important that the area be protected against direct sunlight prior to treatment. If the building material is allowed to absorb too much heat, the product will evaporate too quickly and will therefore not penetrate sufficiently.

APPLICATION

Perform a preliminary test application on an area to establish the status of the substrate to consolidate, the material consumption or any abnormal reactions of discoloration of the substrate.

Mix the **CONSOLIDANTE PIETRA** thoroughly by shaking the container manually before use. The product is ready for use and can be applied by brush or spraying using a sprayer machine at low-pressure, make sure to distribute evenly until the building material is fully saturated. Portable objects such as sculptures can be treated by dipping.

Apply the product with consecutive and continuous "wet on wet" coats ensuring that it penetrates to the core of the material to be consolidated.

If necessary, apply a second course of treatment after two to three weeks at the earliest. If a second course of treatment is carried out before the formation of active substance is complete, the masonry will not be able to absorb the stone strengthener and as a consequence, the surface will turn grey.





INDICATIVE AMOUNTS REQUIRED

The amount of product needed for the consolidation depends on the type of building material. Consumption can vary from 0.15 to 1.5 litres per m², so the necessary amount of stone strengthener must be determined on the test area.

COLOUR

Colourless.

PACKAGING

20 litres tin drums.

STORAGE

12 months in original intact packaging, protect from frost, not exposed to direct sunlight or heat sources.

RECOMMENDATIONS

Do not apply in temperatures inferior of + 10°C, in the presence of strong wind, rain or in direct sunlight or temperatures above + 20°C.
 Protect the surface to be treated from direct sunlight before applying the primer.
 Protect the product from freezing temperatures and rain for the first 72 hours after installation.
 Decolourization of ethyl silicate from the surface can be prevented by washing with a solvent such as alcohol as soon as it is fully saturated.
 When applying outdoors by spraying, be careful not to splash parked cars.
 Prior to application, protect and cover all areas of glass, plastic, wood, marble and all surfaces in general that are sensitive to solvents.
 When applying by long-term immersion, seal the container to prevent the formation of silica gel produced by contact with atmospheric humidity.
 In standard conditions (+ 20°C, 50% RH), the final strength is reached after two weeks, or when most of ethyl silicate has converted to silica gel.
 The product does not contain hydrophobic additives such as silanes or siloxanes.

PRODUCT DATA

<i>Appearance</i>	liquid	
<i>Colour</i>	colourless	
<i>Specific weight at + 25°C</i>	0.997 kg/l	DIN 51757
<i>ethyl silicate content</i>	100% w/w	
<i>Catalyst</i>	neutral	
<i>Flash point</i>	+ 40°C	ISO 2719
<i>Ignition temperature</i>	+ 230°C	DIN 51794

APPLICATION DATA

<i>Minimum application temperature</i>	+ 10°C
<i>Maximum application temperature</i>	+ 20°C
<i>Application relative humidity</i>	> 40%

VOC

Product not intended for uses provided for by Directive 2004/42/CE.

REMARKS

Product for professional use. The data and instructions in this data sheet are based on our best practical and laboratory experience. They refer to laboratory tests and should be considered indicative. In view of the different conditions of use and application, which depend on factors over which Vimark has no control (type of surface, environmental conditions, technical indications for fixing, etc.), those who use the product are responsible for ascertaining whether or not it is suitable for the intended purpose. Thus our warranty obligation merely covers the quality and fade-free characteristics of the actual product, and exclusively in relation to the aforementioned data. Vimark reserves the right to make technical modifications without prior notice. This technical data sheet voids and substitutes all previous editions. Updates will be published on the web site www.vimark.com.

