

Storica Deumidificante

Fibre-reinforced dehumidifying plaster, renovation type (R) in compliance with UNI EN 998-1, based on Natural Hydraulic Lime (NHL 5) certified according to UNI EN 459-1: 2010.

Storica Deumidificante is a macroporous, fibre-reinforced plaster based on completely natural products such as pure natural hydraulic lime, selected sands and earthenware, specific for the conservative restoration of walls, including of historical interest. **Storica Deumidificante** has an excellent water vapour permeability combined with a high resistance to salts, which make it versatile as a solution to any capillary rising damp problem. It guarantees correct breathability of the internal and external walls, increasing the internal comfort of residences. The extreme smoothness thanks to special additives gives the product excellent workability.



MAIN FIELDS OF USE

Storica Deumidificante can be applied both manually and by machine (through the use of classic plastering machines) on various types of internal/external substrates such as:

- Brick
- Stone
- Masonry
- Tufa
- Mixed masonry
- Reinforced concrete
- Concrete

To apply to different substrates, please contact our technical department.

CHARACTERISTICS

- Easy workability: the particular formulation of **Storica Deumidificante** gives the product excellent workability, both on low and high thicknesses. The combination of smoothness, ease of detachment from the tools and simplicity of processing is achieved thanks to the use of latest generation additives.
- High vapour permeability: the areants used for its formulation make **Storica Deumidificante** a macroporous, ventilated plaster that is highly permeable to water vapour.
- Excellent anti-shrinkage capacity: the presence of fibres and the particular formulation of **Storica Deumidificante** minimise cracking phenomena.
- No reaction to salts: solidification of the salt crystals does not alter the characteristics of the plaster which maintains excellent adhesion to the substrate without undergoing swelling, detachment or erosion.
- Ideal for both traditional construction and for historical renovation: the raw materials present in the plaster respect the same used in historical structures



APPLICATION METHOD

Preparation of the substrate

Preparation of the substrates on new walls must be performed in the same way as a normal traditional plaster. The surface of the masonry must be free from dust and dirt, oils, greases, waxes etc. Any crumbling or uneven parts due to salt concentrations must be removed by hydro-blasting and subsequent washing, including any bedding mortars. In this case it will be necessary to reconstruct the parts removed by using compatible mortars.

In dehumidification operations, the substrate (brickwork, stonework, tufa, etc.) must be prepared, completely removing the existing plaster at a height of at least one meter above the area where humidity is visible. Before plastering, it is advisable to treat the substrate with **NeutralAntisale** (an impregnating agent with filter action for the restoration of masonry subject to rising damp). Immediately after treatment apply a first coat of **Storica Deumidificante**.

Preparing the mixture

4.75-5.25 litres of clean water are required for each 25 kg bag (i.e. 19-21% in mass).

Pour the product into a clean container with $\frac{3}{4}$ of the mixing water. Mix for about 3 minutes with a low-speed mixer, gradually adding the remaining water until you obtain a thixotropic, uniform, lump-free mixture. For the best application, leave the mixture to rest for a few minutes. Do not divide the packages up into partial mixtures.

If the product is stored in open, partially used sacks, it may not meet the technical characteristics outlined in this document.

Application

The previously prepared substrate must be wet until it is in SSD conditions (Saturated-surface-dry). Apply in thicknesses of between 6 and 20 mm in a single layer. Spray from bottom to top and then straighten, using a H-shaped striker or knife, smoothing horizontally and vertically, until you obtain a flat surface. For thicknesses above 20 mm, add more layers waiting at least 1 day before applying the next one, always taking care to roughen the substrate layer using a hard grout trowel. This operation, necessary and essential for any type of subsequent work, must always be performed from 1.5 to 4 hours after application, depending on the environmental conditions.

In case of application by hand, to allow easier adhesion to the subsequent layers, proceed with a first layer of roughing/rendering performed with a trowel in order to completely cover the surface. Then apply the plaster in one or several coats in thicknesses no greater than 20 mm per coat.

To maximise the effectiveness of the plaster, the application thicknesses should never be less than 20 mm.

PRODUCT INFORMATION

Appearance	Beige powder
Particle size	<2.0 mm
Powder consumption	15 kg/m ² every 10 mm of thickness
Mixing water	19-21% of the weight of the powder
Workability time at 20 °C	>30 minutes
Application thickness per coat	6-20 mm
Application temperature	from +5 °C to +35 °C
Storage	12 months in dry, protected place in unopened container at temperatures between +5 °C and +35 °C
Packaging	25 kg bags
pH of mixture	approx. 10.5

PERFORMANCE required according to UNI EN 998-1

Characteristic	Test method	Legal requirement	Performance
Dry density in bulk	EN 1015-10		1250-1350
Compressive strength	EN 1015-11	CS II	CS II
Adhesion	EN 1015-12		≥0.13
Fracture pattern	EN 1015-12	A, B, C	B
Capillary absorption	EN 1015-18	W0-W2	W0
Water vapour permeability coefficient (μ)	EN 1015-19	≤ 15	≤15
Thermal conductivity (λ)	EN 1745:2002, Table A.12		0.4
Euroclass fire resistance	EN 13501-1		A1
Tensile strength (artificially aged using hygrometer test)		1.97 N/mm ²	
Flexural strength		3.0 N/mm ²	
Static modulus of elasticity (ETAG 004):		1.300 N/mm ²	
Static modulus of elasticity (artificially aged using hygrometer test)		9,190 N/mm ²	
Tensile strength (ETAG 004):		1.54 N/mm ²	
Particle size		< 100 microns	
Tensile strength (artificially aged using hygrometer test)		1.97 N/mm ²	
Dry bulk density of hardened mortar UNI EN 1015-10		1350 kg/m ³	
pH of mix		≈12	
Compressive strength UNI EN 1015-11		9.5 N/mm ² (CS IV)	
Flexural strength		3.0 N/mm ²	
Static modulus of elasticity (ETAG 004):		1.300 N/mm ²	
Static modulus of elasticity (artificially aged using hygrometer test)		9,190 N/mm ²	
Tensile strength (ETAG 004):		1.54 N/mm ²	
Particle size		< 100 microns	

WARNINGS

- Product for professional use.
- The values expressed in the technical data derive from laboratory tests in a conditioned environment, therefore they could be significantly modified by the laying conditions.
- Protect eyes and skin during application. Alkaline product.
- After using the product, wash the tools with water while the mortar is still fresh.
- If the product is stored in open, partially used sacks, it may not meet the technical characteristics outlined in this document.
- For correct installation of the product, the following are recommended:
 - Do not add other products or binders, **Storica Deumidificante** must be mixed with only prescription water;
 - For any application other than that shown on the sheet (type of substrate, thickness, etc.) please contact the **Licata Technical Service**.
- The ambient temperature and humidity rate influence the workability, setting and drying times.

SAFETY

Please consult the safety data sheet for information about product disposal, storage and usage.

NOTES

This data sheet replaces and voids all previous versions.

The indications and specifications given in this document are based on our current technical and scientific knowledge. They should, however, be considered as purely indicative because we have no control over the conditions in which the product will be used. The purchaser must, therefore, check that the product is suitable for his specific requirements. Our sales and technical network guarantees rapid consultancy services and is at your disposal for any clarifications and questions you may have about the use and application of **Licata SpA** products.

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