



arteMURI® PENTACALCE



Mineral paint based on slaked lime for interior and exterior use.



Product description and fields of application

PENTACALCE is a mineral paint formulated with a base of seasoned and hydrophobically modified slaked lime, selected fine aggregates and natural pigments for the external and internal decoration of buildings. The appearance of the opaque and mineral film is able to reproduce the chromatic effects and natural shades typical of lime. It has excellent water vapor permeability and good resistance to mold attack.

PENTACALCE is indicated for the decoration of buildings of architectural interest and in the restoration of historic centers.

The slaked lime (calcium hydroxide), after the application reacts with carbon dioxide in the air giving rise, through a reaction of carbonation, calcium carbonate that binds chemically to the plaster, which is also based on lime. On exterior walls, the current conditions of environmental pollution do not guarantee the product adequate durability and protection; therefore, its use is recommended only on buildings that are not highly exposed or where a mineral finish based on slaked lime is specifically required. PENTACALCE can be tinted with the arteMURI tinting system.

Advantages

- mineral finish for exteriors and interiors
- decorative
- excellent breathability
- sanitizing action and resistance to the formation of mold and bacteria
- organic components < 5%.

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Specifications

The wall surfaces, such as mortar plaster based on lime-hydraulic binder, premixed and traditional, finished in civil, can be finished with the mineral paint PENTACALCE of Fornaci Calce Grigolin, a product based on slaked lime, selected fine aggregates, pigments resistant to light and specific additives. The minimum consumption of this product is 0.26 l/m² for two coats.

Consumption and packaging

PENTACALCE is supplied in 15-liter packages.

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Conservation Standards

Protect against frost. Store at temperatures between +5°C and +30°C in the original sealed containers. Under these conditions, the shelf life of the stored product is at least one year.

Since the product is mineral in nature, it may thicken slightly during storage, but this does not compromise the quality and use of the material; in such cases, mix the product briefly. However, it is advisable to use in a short time.

Substrate preparation

New substrates and/or any repairs (patches) must be cured by at least 4 weeks, clean and dry. Old substrates must be consistent, free of salt efflorescence and loose parts, thoroughly cleaned according to the nature and intensity of the dirt deposited on the surfaces to be treated. To level and fill imperfections such as holes, cracks or crevices, first intervene with a suitable product or repair mortar. Clean up any mold or algae and then sanitize the surface with SEI OK restorer.

On surfaces that have already been painted with lime paints, make sure of the conditions: brush and/or scrape the films in the detachment phase, completely remove high layers of non-adherent paints.

Lime-based products must absolutely NOT be applied on cement, gypsum, plasterboard, wood, metal supports and on supports already painted with film-forming paints, as the chemical reaction with the support cannot take place, with consequent lack of adhesion.

Trattamento dei media

New plasters: apply directly. It is possible to dampen the support with water to slow down the drying process. In case of particularly absorbent plasters, apply a coat of F4 SIL silicate fixative.

Plasters with mineral paints (lime or silicates): apply one coat of F4 SIL silicate fixative.

Plasters with synthetic paints (acrylic, siloxanic): NOT SUITABLE.

Cement/concrete/fibrocement: NOT SUITABLE.

New plaster/plasterboard: NOT SUITABLE.

Plaster/plasterboard painted with tempera: NOT SUITABLE.

Plaster/plasterboard painted with washables: NOT SUITABLE.

The reported data refers to Quality Control tests in standard environmental conditions. Practical applications in the construction sites may detect significantly changed data, depending on operating conditions, so the information on the Card is only indicative because the user must always check its suitability for intended use of the product by taking responsibility for the use. Fornaci Calce Grigolin S.p.A. reserves the right to make technical changes of any kind without prior notice.

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Product preparation

Dilute PENTACALCE with 20% by volume of water for the first coat, 15% for the second coat for brush application and 5-7% by volume for roller application.
Mix well.

Application

The product can be applied by brush or roller; apply a first coat taking care to distribute the product evenly over the surface. After at least 10-12 hours proceed with the application of the second layer, taking care to cross the passes during their drafting.

Withdraw the material necessary for the execution of the work from the same batch. If different batches of product are used, it is advisable to mix them together in order to avoid slight differences in shade. Absolutely avoid the application of different batches on the same surface and finish the wall with a single batch, then resume painting on the wall at the edge with the next batch. Wash tools and equipment with water immediately after use.

Important Warnings

Do not apply with ambient and/or substrate temperature lower than +5°C or higher than +35°C and with relative humidity higher than 75%. Avoid application in presence of superficial condensation, under direct sunlight or strong wind. The adhesion of the product to the substrate is not guaranteed when the application takes place on surfaces that have salt efflorescence or are subject to humidity, so it is necessary a preventive intervention of masonry restoration.

Special Warnings

Respect the climatic conditions of application indicated above. In unfavorable climatic conditions, there could be phenomena of rapid "carbonation" with the consequent formation of unsightly whitish surface stains of calcium carbonate, particularly evident in the case of medium-dark colors. It is not recommended to apply the product outdoors at low temperatures, high humidity, excessive heat and windy conditions. Since the phenomenon can also occur 8-10 days after application, it is advisable to protect the surfaces for as long as possible.

Safety instructions

The product is strongly alkaline: use gloves and goggles when handling. Avoid contact with skin and eyes and in case of contact wash immediately with plenty of water. Use the products according to current hygiene and safety regulations. After use, do not dispose of the containers in the environment: let the residues dry and treat them as special waste. For further information please refer to the safety data sheet.

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TECHNICAL DATA	PERFORMANCE
Binder type	aged slaked lime and binders in water dispersion
Appearance	paste/smooth/pigmented
Specific weight(UNI EN ISO 2811-1) 25°C±2	1340 ± 30 g/l
Brookfield viscosity(ASTM D2196) 25°C±2	10.000 ± 2.000 cP
Water vapor permeability and classification (UNI EN ISO 7783-2)	V = 445 g/m ² 24h Class I (high permeability)
Equivalent air layer thickness (UNI EN ISO 7783-2)	Sd = 0,047 m
Vapor Permeability μ	ca. 40
Liquid water permeability and classification (UNI EN 1062-3)	w24 = 0,37 kg/m ² h ^{0,5} Class II (medium permeability)
Suitable for facade protection as it complies with the KÜNZLE theory (DIN 18550) where w24 < 0,5 kg/m ² h ^{0,5} and Sd<2 m	Sd · w24 = 0,017 kg/m h ^{0,5}
Degree of gloss (UNI EN ISO 2813)	5 -10 gloss, matt
VOC content (DIR. 2004/42/CE)	Paint for exterior walls of mineral substrate. EU limit values for subcategory c, type BA 40 g/l (2010) This product contains a maximum of 40 g/l of VOCs.
Application	brush, roller
Overpainting	6-8 hours
Theoretical consumption	approx. 170 g/m ² per coat (0.13 l/m ²)
Theoretical yield	3.8 m ² /l with two coats

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