



Bio traditional fibre-reinforced base coat plaster made from pure nano-lime with pozzolanic effect, for interiors and exteriors



Interior/Exterior



Sack



Silo



By hand



By machine

Composition

K 1710 is a dry mortar composed of pure natural nano-lime, nano-powders with pozzolanic effect, inorganic fibres and premium graded aggregate from the best quality carbonate rocks.

The lime used to make this product is classified as compliant with standard EN 459 and is extremely pure with non-measurable levels of heavy metals.

The lime used is extremely fine: such fineness can only be achieved by carefully screening hydrated lime. The lime particles resulting from this screening process are nearly all much smaller than 2 µm in size, and on average measure just a few nanometres (a nanometre is one millionth of a millimetre), giving a minimum specific surface area of around 22 m²/g. This provides a mix that is extremely workable, but above all it allows rapid subsequent carbonation, which, as is known, is useful in ensuring the plaster has suitable mechanical strength. Such mechanical strength is further improved over time by the presence of pure powders (again in the nanometre size range), with pozzolanic characteristics that give the plaster adequate weatherproofing qualities.

All this, together with the purity of the materials used, also means a reduced tendency for the formation of salt deposits, as may frequently occur with materials made from commonly-used grey Portland cement, in which the soluble salt content may reach quite significant levels.

Finally, the extreme fineness of the materials significantly increases breathability.

The added inorganic fibres also significantly reduce the risk of cracks forming, both in the short term and after extensive curing.

The product is free from any type of plastics.

Supply

- In bulk in silo (available in Italy, France and Switzerland)
- Special sacks with protection against moisture, approx. 25 kg

Use

K 1710 is used as a foundation plaster on old and new walls made from stone, bricks, tuff, etc. The elasticity of the plaster and its fibre content mean it can also be used, in accordance with the instructions shown below, on mechanically weak substrates, such as masonry made of stones and/or bricks (restoration works in general).

Substrate preparation

The wall must be free from dust dirt, salt deposits etc.. Any traces of oil, grease, wax etc. must be removed beforehand. Smooth concrete surfaces must be dry and previously treated with a bonding agent such as S 650. Joints of different elements must be reinforced with special, alkali-resistant, fibreglass mesh; the mesh must not be attached directly on the masonry but should be embedded in the surface area of the plaster. To obtain high quality plastering and avoid excessive consumption of material, the brickwork should be carried out with particular care; the joints between the bricks must be filled effectively, any holes or cracks in the wall must be sealed beforehand and door and window frames must not protrude more than a few millimetres. To maintain the plumb of the wall, corner guards or uprights should be placed at the corners and vertical guides should be placed on the walls.



Mixing

K 1710 is applied by hand or using plaster sprayers, such as FASSA, PFT, PUTZKNECHT, PUTZMEISTER, TURBOSOL and the like.

When preparing by hand, add 21.5-23.5% of clean water and then mix by hand or mechanical stirrer for no longer than 3 minutes, until obtaining a mixture of the desired consistency. After mixing with water, the mortar must be applied within 2 hours.

The plaster or render is applied from the bottom upwards and then levelled using an H-shaped or blade screed with horizontal and vertical movements so as to ensure, where required, a flat surface, or uniform plaster-render thickness. K 1710 is applied in a single layer up to 20 mm thick. For thicknesses exceeding 20 mm, the plaster must be applied in a series of layers. Each layer must be applied before the underlying layer hardens; the latter must be left rough.

Surface work on the plaster (with a float or notched trowel etc.) can be carried out from 1.5 to 4 hours after application according to the ambient conditions and the type of surface.

The finishing is carried out when the plaster has completely hardened, using materials such as "Malta Fina", smoothing plasters, mineral based wall coatings etc.

A more rustic finish (for garages, basements etc.) can be obtained by finishing the material directly with plastic, wooden or sponge-covered float.

Warnings

- Product for professional use.
- The fresh render must be protected against frost and quick drying. As the hardening of the plaster depends on the air setting of the lime, a temperature of +5°C is suggested as a minimum value for application and for obtaining proper hardening of the mortar. Below this value, setting would be delayed excessively and below 0°C the fresh or partially hardened mortar could be broken up by frost.
- Application in strong winds can cause the formation of cracks and "burning" of the render. Precautions need to be taken in such conditions (protection of interiors, application of the plaster in two layers and smoothing the top layer carefully with a float etc.).
- For application on particular substrates (wood-cement panels, mesh, certain types of insulating walls etc.) we cannot guarantee results with no cracks. Please contact our Technical Department for advice on how to limit such problems. Nevertheless, it is advisable to consult the instructions of the supplier of the substrate.
- For renovation works on different kinds of substrates and with different plaster thicknesses, please contact our Technical Department to choose the most suitable product cycle.
- Paint, coverings and wallpaper etc. must only be applied after the plaster has completely dried and cured.
- Aerate the rooms thoroughly after application until the mortar is completely dry, avoiding excessive changes in temperature in the rooms.
- Due to the nature of the raw materials used (natural sands), uniformity of colour cannot be guaranteed between different supply lots. As a result, all the material required to finish the job should be acquired from the same batch.

K 1710 must only be used in its original state without the addition of other materials.

Storage

Store in a dry place for no longer than 12 months.

Quality

K 1710 is subjected to careful and constant testing in our laboratories. The raw materials used are rigorously selected and checked.



Technical Data	
Specific weight of the powder	approx. 1,400 kg/m ³
Minimum thickness	10 mm
Grading	< 3 mm
Mixing water	21.5-23.5%
Yield	approx. 14.5 kg/m ² with 10 mm thickness
Shrinkage	negligible
Density of hardened plaster (EN 1015-10)	approx. 1,550 kg/m ³
Compressive strength after 28 days (EN 1015-11)	approx. 2.5 N/mm ²
Compressive strength after 90 days	approx. 3 N/mm ²
Water vapour diffusion resistance factor (EN 1015-19)	$\mu \leq 7$ (measured value)
Capillary water absorption coefficient (EN 1015-18)	W0
Thermal conductivity coefficient (EN 1745)	$\lambda = 0.50$ W/m·K (tabulated value)
Compliant with standard EN 998-1	GP-CSII-W0
ANAB ICEA certification	No. EDIL.2009_001
The product K 1710 contributes toward satisfying the credits under LEED®.	MR 2, MR 5, IEQ 4.2 and ID 1

The above information refers to laboratory testing; it is possible that in practical applications on site these may differ considerably according to the conditions in which the material is applied. In any case the user must check that the product is suitable for the intended application, taking all responsibility for its use. Fassa reserves the right to make technical modifications without notice. Technical specifications regarding the use of Fassa Bortolo products for structural or fire prevention applications will only be officially valid if provided by Fassa Bortolo's "Technical Service" and "Research, Development and Quality System". Our Technical Service can be contacted by email at area.tecnica@fassabortolo.com. Please note that for the aforementioned products, the assessment is required by the appointed professional, in accordance with regulations in force.