



KI 7

Fibre reinforced lime/cement base coat plaster with water-repellent properties, for exteriors and interiors



Interior/Exterior



Sack



Silo



By machine

Composition

Fibre-reinforced KI 7 is a dry mortar made from Portland cement, graded sands, water repellent material, polymer fibres and specific additives to improve workability and adhesion. The particular formulation of fibre-reinforced KI 7 makes it particularly suitable for exterior applications in that it has high water-repellent properties yet still maintains its permeability to water vapour. Furthermore shrinkage is reduced thanks to its fibres. The low internal absorption of water of the plaster considerably increases its durability, since water is the major carrier of deteriorating agents within any kind of material exposed to the outside.

Supply

- In bulk in silo
- Special sacks with protection against moisture, approx. 30 kg. (The product packaging will gradually pass from 30 kg sacks to 25 kg sacks).

Use

Fibre-reinforced KI 7 is used as a foundation plaster on bricks and honeycombed bricks, concrete blocks, rough concrete, expanded clay etc. For special underlays you need to follow the instructions of the supplier. Fibre-reinforced KI 7 is indicated as the ideal external foundation for mineral-based wall coverings and for IP 10 finishing plaster available in 1 mm gradings.

The advantages of greater water resistance:

- Longer durability of the plaster
- Dry walls and consequently better heat insulation
- Greater dimensional stability and consequently lesser tendency for cracks to form
- Less rising damp due to capillary action

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 substrates must be dry and treated beforehand with bonding agents such as SP 22, or with a bonding undercoat of sand and cement with the special AG 15 alkali-resistant additive. Joints between different elements must be reinforced with special alkali-resistant fibreglass mesh; the mesh must not be attached directly to 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

Fibre-reinforced KI 7 is applied using plaster sprayers, such as FASSA, PFT, PUTZKNECHT, PUTZMEISTER, TURBOSOL and the like. It is applied in a single layer up to a thickness of 20-30 mm, by spraying from the bottom towards the top and then it is straightened with H floats or plaster knives with horizontal and vertical strokes to obtain an even surface. For greater thicknesses, the plaster must be applied in a series of layers, at least 1 day apart, always remembering to roughen the underlying layer. After mixing with water, the mortar must be applied within two hours. 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 surface type. For exteriors a plastic or wooden float should be used in order to obtain a uniform and compact surface, suitable for thick finishing wall coatings. When wall finishing is carried out using "Malta Fina", you need to significantly delay smoothing operations with a float due to the poor water absorbing properties of the plaster.

Warnings

- The fresh plaster must be protected against frost and quick drying. As the hardening of the plaster depends on the hydraulic setting of the cement and 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.
- During the summer, on surfaces exposed to the sun, the plaster should be wetted for a few days after application.
- Application in strong winds can cause the formation of cracks and "burning" of the plaster. 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.).
- The use in exteriors of rough finishes, such as wall coatings or IP 10, limits the formation of hairline cracks to a greater extent than smooth finishes such as "Malta Fina", etc..
- For application on particular substrates (wood-cement panels, mesh, certain types of insulating walls etc.) we cannot guarantee results with no cracks. Our Technical Office is at your disposal to advise you on the best way to limit these 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 material is completely dry, avoiding excessive changes of temperature in the environment.

Fibre-reinforced KI 7 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

Fibre-reinforced KI 7 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	< 1.5 mm
Mixing water	approx. 23%
Yield	approx. 12.8 kg/m ² with 10 mm thickness
Shrinkage	approx. 0.04 mm/m
Density of hardened plaster	approx. 1,530 kg/m ³
Flexural strength after 28 days	approx. 1 N/mm ²
Compressive strength after 28 days	approx. 2.5 N/mm ²
Modulus of elasticity after 28 days	approx. 3,000 N/mm ²
Water vapour diffusion resistance factor (EN 1015-19)	$\mu \leq 14$ (measured value)
Capillary water absorption coefficient (EN 1015-18)	W1 $c \leq 0.40 \text{ kg/m}^2 \cdot \text{min}^{0.5}$
Thermal conductivity coefficient (EN 1745)	$\lambda = 0.55 \text{ W/m} \cdot \text{K}$ (tabulated value)
Compressive strength after 25 freeze-thaw cycles	approx. 3.5 N/mm ²
Complies with the EN 998-1 standard	GP-CSII-W1

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.