

Limepor IZ8

ST12-1219

Grout made out of natural hydraulic lime for consolidation injections on rubble-filled walls, also with frescoed surfaces



DESCRIPTION

Limepor IZ8 is an injection mixture with high resistance to sulphates without water-soluble salts. It is made out of natural hydraulic lime NHL, reinforced with pozzolanic high reactivity metakaolin.

Limepor IZ8 can be injected with any pump into cracks and cavities with special injectors.

It is CE marked according to the EN 998-2.

ADVANTAGES

- High breathability and chemical compatibility with the materials used in historic buildings.
- Product that does not give rise to efflorescence.
- Very fluid with low water/binder ratio and high penetration power.




USES

Limepor IZ8 is used for the regeneration and pre-consolidation of masonry structures, even frescoed, by injection.

WORKS

- Renovation of old masonry walls (even frescoed) by injections of mixture with no water-soluble salts (**SA50**)

APPLICATION

	Pourable		Workability time of fresh mortar: 255 ± 30 mins
			Mixing water: 4,8 – 5,5 lt/ 15Kg

Limepor IZ8 has to be mixed with drinking water in the quantities shown in the table. It is advisable to introduce 3/4 of the required water into the mixer, adding the product and the remaining water continuously, until the desired consistency is achieved. Any other components besides mixing water must not be added during preparation and laying.

Limepor IZ8 must be injected into walls with normal pumps, manual or electric, at low pressure, through injectors fixed in the perforations, from the lower holes towards the upper ones.

Do not mix the product by adding water once it has started setting.

CONSUMPTION

1.4 Kg/dmc.

Absorption per m³ of masonry: 80-190 Kg depending on the cavities in the masonry.

PACKAGING

Bag 15 Kg.

Pallet 60x15 Kg - 900 Kg.

STORAGE

The product fears moisture. Store in a sheltered and dry place; in these conditions and in intact containers, the product maintains its stability for 12 months.

Characteristics	Value
Appearance	Powder
Color	Bianco
Application temperature	+2 - +35 °C
pH in water dispersion	11,5 - 12,5
Particle size distribution EN 1015 1 (0,10 mm)	100 %
Particle size distribution EN 1015-1 (0,01 mm)	40 %
Content of soluble salts, sulphates, nitrates, chlorides (Normal 13/83)	< 0,07 %
Sulphates resistance	Plier opening: < 10 mm; high resistance to sulphates attack
Resistance to sulphates Anstett-Le Chatelier modified essay (internal method)	No lack of resistance for tests soak for 90 days in Na ₂ SO ₄ solution at 5%
C3S content evaluated through diffractometric (XRD) and spectrophotometric (FTIR) conditions	None
Fluidità EN 445 (Marsh cone)	Initial < 25 secs; 30 mins < 25 secs; 60 mins < 25 secs.
Workability time of fresh mortar EN 1015-9	255 ± 30 mins
Bleeding UNI 480-4	None
Elastic modulus EN 13412	3,5 – 4,5 GPa
Compressive strength EN 1015-11	In 7 days > 5 Mpa In 28 days > 9 Mpa In 90 days > 11 Mpa
Flexural strength EN 1015-11	In 7 days > 1,4 Mpa In 28 days > 1,7 MPa
Vapour diffusion coefficient EN 1745	15/35 (table value)
Thermal conductivity	0,83 W/mK (table value)

Characteristics	Limits EN 998-2	Value
Elements ratio in weight [%]	Declared value	Binder: 25-35 Inerts: 65-75 Additives: < 1
Chloride content [%] EN 1015-17		≤ 0,1
Compressive strength in 28 dd EN 1015-11 [MPa]		> 9
Initial shear strength [MPa] with masonry elements in compliance with EN 771		0,15 [able value]
Capillar water absorption EN 1015-18		0,4
Water vapour permeability EN 1745		15/35 [table value]
Reaction to fire class		A1
Hazardous substances		See SDS

WARNING

Product intended for professional use. Different batches of the same raw materials have slightly discordant colors, between one batch of production and the other there could be small chromatic variations. Check the integrity of the package before use and do not use the product with lumps.

The marking obligations are not related to the intrinsic nature of a given product, but to the use for which a specific material is used: before ordering in Kimia, it will be the customer's responsibility to submit all the available documentation to the construction supervision so that they can establish the suitability of the materials (in terms of certifications and performance) in relation to the use for which they are intended.

The technical specifications and application methods recommended herein are based on our current knowledge and experience and do not represent any form of guarantee of the final results obtainable with the product.

It is the customer's responsibility to verify the product suitability for its use by making previous tests before the application and check that this data sheet is still effective and it has not been replaced by more updated versions.

TECHNICAL SPECIFICATIONS

SK50 – Renovation of old brick walls (even frescoed) by injections of mixture with water-soluble salts content

Grout all the cracks (if the masonry is plastered, check the perfect adhesion of the plaster to the substrate); drilling preparation (4 to mq, with diameter of 20-24 mm), injectors positioning and sealing; washing of the masonry; injection with normal manual or electrical equipment, until the complete saturation of the masonry, Limepor IZ8 grout by Kimia S.p.A. or similar product. The masonry can be considered saturated when the mortar leaks out of the injector. The consumption of the material will be minimum 150 kg/m³. After completing the injection work, remove all the injectors, grout the holes and prepare masonry for any further work.

The injection product used to regenerate frescoed cavity walls, consisting of natural hydraulic lime (CE marked according to the EN 459) with the addition of natural pozzolan (high reactivity methakinol) and carbonate filler, characterized by a salt content water-soluble and with physical, chemical and mechanical compatibility with the components used in ancient masonry, will be prepared and applied scrupulously following the indications given on the technical sheets provided by the Manufacturer and must have the following characteristics:

- Particle size distribution EN 1015 1 (passante a 0,10mm): 100 %;
- Particle size distribution EN 1015-1 (passante a 0,01mm): 40 %;
- Fluidity UNI 8997: 80 - 87 cm;
- Fluidity (Marsh cone): initial < 25 secs.; 30 mins < 25 secs; 60 mins < 25 secs.
- Bulk of fresh mortar EN 1015-6: 1840 ± 50 kg/m³;
- Workability time of fresh mortar EN 1015-9: 255 ± 30 mins;

- Compressive strength in 7 dd EN 1015-11 > 5 MPa;
- Compressive strength in 28 dd EN 1015-12 > 9 N/mm²;
- Compressive strength in 90 dd EN 1015-11 > 11 MPa;
- Flexural strength in 7 dd EN 1015-11 > 1,4 MPa;
- Flexural strength in 28 dd EN 1015-11 > 1,7 MPa;
- C3S content: None.

The manufacturer will be able to demonstrate his know-how in the production of injection products (providing reports of experimental tests already performed in situ, also of a comparative nature).

The base binder of the product will be CE marked in compliance with the EN 459 000/CPD /A46/0003.

The product will be CE marked as a prescribed composition mortar according to the EN 998-2.