

# FAT LIME

(Calcium, natural air in paste)

## FEATURES

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- Definition / manufacturing

**FATTY LIME** is obtained by firing pure limestone over a wood fire. The extracted quicklime is then slaked with excess water before maturing in pits for periods ranging from three months to two years.

Air lime has the property of setting in the air by reaction with carbon dioxide, this is what is called carbonation.

Classification (according to European standard UNI-EN 459-1 : 2002): 03-03-0002 **FATTY LIME** in bags EN 459-1 CL 90-S.

- Properties

Water retention, reduced sedimentation rate, better resistance and elasticity of the structures produced, plasticity, very high transparency, very bright, extreme whiteness, recognized quality, excellent permeability to water vapor, very low-polluting manufacturing process.

- Physical/chemical characteristics

Composition:	calcium hydroxide $\text{Ca(OH)}_2$
Color:	white
Calcium ( $\text{CaO}$ ) + magnesium ( $\text{MgO}$ ):	90%
Carbon dioxide ( $\text{CO}_2$ ):	4%
Magnesium ( $\text{MgO}$ ):	5%
Sieve residues 0.09 mm:	7%
0.2 mm sieve residue:	2%
Sieve residues 4900 mesh/ $\text{cm}^2$ ( filtered <b>FAT LIME</b> ):	3%
Stability:	optimal, recognized
Penetration:	$10 < P < 50$ mm
Apparent specific gravity:	1000-1300 g/l
PH:	around 11-13
Flammability:	non-flammable, class M0

- Use

We offer you the opportunity to learn how to use **FATTY LIME** with pleasure and respect for old buildings, both in masonry for the production of traditional mortars and in finishing for the production of whitewash, coatings, stuccos, etc.

Allows the preparation of traditional mortars very suitable for manual application or for spraying on new ecological supports ( single-wall brick for example).

- Noticed

Andrea Palladio, the famous architect of the Italian Renaissance, also pointed out (from "On Lime and the Method of Mixing It" taken from "The Four Books of Architecture", Book 1, Chapter 5, published in Venice in 1570):

"The stones that we collect in rivers and streams, that is, pebbles, make excellent lime that gives a white and good finish that we use especially for coating walls. Each stone from the mountains, like that of the rivers, is cooked more or less according to the fire that we give it but it cooks according to the rule 60 hours. Cooked it must be wet but without giving it all the water at once but several times, continuously, so that it does not burn and until it is well soaked. Then it is put in a humid and shady place without mixing anything with it, covering it only with light sand, and the more it has matured, the more it will be tenacious and better."

According to the European standard EN 459-1 for building lime, lime putty is defined as: "slaked lime mixed with water to a desired consistency and consisting mainly of calcium hydroxide with or without magnesium hydroxide."

Our lime is produced using this process, which is still widespread in countries where quicklime is traditionally slaked, such as the United Kingdom, Spain, Italy, etc. Quicklime immersed directly in water never comes into contact with the air, and a very smooth, fine paste is obtained, which has the properties described above. This genuine **FATTY LIME** paste ( Grassello di calce, Lime putty ) is distinguished from the lime putty that is sometimes found on the market, which has the same appearance but not at all the same qualities. Indeed, some lime putty

## PRECAUTION FOR USE ( FOR DETAILS SAFETY DATA SHEET AVAILABLE )

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### Irritating to eyes and skin.

Causes serious eye damage. Protect eyes and skin. In case of contact, wash immediately with plenty of fresh water and seek medical advice if symptoms persist. Keep out of reach of children. Protect surrounding areas from possible splashes, otherwise clean immediately. Do not pour residue down the drain. Dry before disposal.

## CLEANING AND PRESERVATION

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Clean tools with water immediately after use.

Storage: 1 year in original, closed packaging, protected from frost and high heat.

## PACKAGING

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Unfiltered **FATTY LIME** (for masonry): 25 kg plastic bag.

**FAT LIME** (for finishing): 20 kg plastic bucket.

Text

## HISTORICAL

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The traditional lime mortar used since antiquity by the Romans and the traditional bastard mortar made since the arrival of Portland cement on the market in the 1830s - 1840s proved their worth until the 1960s - 1965 when they were unfairly replaced by cement mortars which were not necessarily of better quality and whose lower cost is debatable.



## CHARACTERISTIC

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Production of traditional interior/exterior renders and plasters for new construction and renovation projects. Waterproof to runoff water.

Excellent water vapor permeability (allows the supports to breathe). Excellent resistance and elasticity of the structures produced, etc.

## IMPLEMENTATION

- **Preparation of supports**

On all mineral supports, concrete, cellular concrete, old masonry (rubble, stone, bricks), etc.  
 Surfaces must be clean, sound, hard, cohesive and absorbent. Before application, moisten the substrates without letting them drip.

	Old masonry (rubble, stone, bricks)	Concrete blocks	Concrete Cellular concrete	Drying
Lime render	X			About 2 weeks
Bastard Render	X			About 1 to 2 weeks
Cement rendering		X	X	About 1 week

- **Preparation of the mixture**

Mix manually with a trowel or preferably mechanically using a mixer, concrete mixer or spraying machine until a smooth, lump-free paste is obtained. Let stand for a few minutes before application. The pot life is 8 to 24 hours. For better preservation, protect the coating from air with a trickle of water. Tinting is possible using compatible mineral pigments.

Table of approximate dosages according to the recommendations in the "Application" table in the following chapter ( these dosages are given for information purposes only and may be subject to adjustment on site depending in particular on the fine powder content of the sand).

	Lime mortar		Bastard mortar		
	Rendering For approximately 20m <sup>2</sup>	Plaster body For about 5 m <sup>2</sup>	Rendering		Plaster body For about 10 m <sup>2</sup>
			Cement For about 40 m <sup>2</sup>	Bastard For about 40 m <sup>2</sup>	
Sand *	40 Kg(3 🪣)	60 Kg(5 🪣)	90 Kg(7 🪣)	85 Kg(6 🪣)	85 Kg(6 🪣)
LIME FAT	25 Kg(2 🪣)	25 Kg(2 🪣)	-	25 Kg(2 🪣)	25 Kg(2 🪣)
Portland Cement R32.5	-	-	35 Kg(3.5 🪣)	15 Kg(1.5 🪣)	10 Kg(1 🪣)
Water	20 litres(2 🪣)	20 litres(2 🪣)	40 litres(4 🪣)	40 litres(4 🪣)	30 litres(3 🪣)

🪣 Mason's bucket: approx 10 litres.

\*The quality of the sand is very important. Preferably use river sand, if possible siliceous.  
In general, the ideal grain size is 0- 2 mm or even a little larger for 0- roughcast 4 mm.

- **Application (manual or projected)**

This traditional wall coating is done in 3 layers even if it is increasingly common for it to be done in 2 layers, for example:

Layers of plaster		Thickness	Appearance	Tools	Drying	Consumption
1	Rendering	3 to 5 mm	Rough	Trowel or sprayed	See the support preparation table above.	3 to 5 Kg/ m <sup>2</sup> *
2	Plaster body (1 or 2 layers)	15 to 20 mm	Rough	Trowel or sprayed	4 to 8 days	15 to 20 Kg/ m <sup>2</sup> *
3	Finishing :					
	Lime plaster	2 to 3 mm	Troweled, rustic crushed or smoothed	Trowel or sprayed and sponge trowel	2 to 3 days	2 to 3 Kg/ m <sup>2</sup>
	Or					

	Limewash	300 to 500 µ	Brush	Brush	1 to 2 days	200 to 300 g/ m <sup>2</sup> for 2 coats
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Humidification between layers 1 and 2, possible but not mandatory between layers 2 and 3.

\*Consumption of **FAT LIME** (roughcast + coating body): lime mortar = 5 to 6 kg/ m<sup>2</sup>, bastard mortar = 3 to 5 kg/ m<sup>2</sup>.

- **Practical advice**

Clean tools with water immediately after use.

Implementation temperature: from + 5°C to + 30°C.

Do not use in frost, rain or on surfaces exposed to the sun or wind.

Each section of the facade must be completed within the day. Any work must be completed at natural points (corners, doors, etc.).

*The information contained in this sheet is the expression of our knowledge and test results; it cannot under any circumstances be considered as providing a guarantee or as engaging our liability in the event of defective application.*