



# Fat lime plaster

## Application Guide

### Description

Tŷ-Mawr Lime Plasters/Renders are made from a high calcium lime (also known as a fat /air/putty or non-hydraulic lime) and carefully selected aggregates. Lime plasters require exposure to Carbon Dioxide in the presence of moisture to harden. Preparation and protection are just as important as correct application.

### Please note

The application of lime plaster is more involved than using conventional plaster. It is highly recommended to use a plasterer experienced in the use of lime plasters or at the very least you should get some practical experience e.g. on a course, as it is not possible to cover every point in detail here. However, if you need further guidance after following the advice given, please contact our Product Support Team at [tymawr@lime.org.uk](mailto:tymawr@lime.org.uk)

### Preparing the mix

- the plaster needs to be 'knocked-up' - a process of chopping, beating and turning which will release some water. Only the minimum amount of water should be added if required to make a workable mix, it should be used as stiff as possible.
- a mortar mill or forced action mixer is the ideal way to 'knock-up' the lime plaster but this is not always possible. If a bell mixer is used, then it should be left turning for long enough to achieve a suitable consistency without adding water (20-30 minutes).
- if water is required, it should be added **CAUTIOUSLY**.
- if hair is required, gently tease in towards the end of the 'knocking-up' process - avoid hair balls.

### Preparing the surface

- pre-wet absorbent surfaces such as stones/bricks/laths by spraying (usually 2 or 3 times) before application. Lime plasters or renders can only carbonate whilst moist, if they dry out before they carbonate, they can fail.
- please note if you are using Tŷ-Mawr wood wool boards or woodfibre boards as a background for your plaster, **pre-wetting is not usually required**.
- dub-out the walls with Lime Hemp or Base Coat Plaster (haired) where necessary before applying the first coat of base coat plaster to create an even surface (each coat of lime plaster can then be applied at the same even thickness). This should be left to harden before applying the first base coat.

### Application of the Plaster/Render

- onto stone/brick/lath: Internally, it is usual to apply three coats - our Lime Base Coat Plaster is used for the scratch (first) and floating (second) coats, they should both be applied at about 8mm thick, the Top Coat Plaster (internal) should be applied in two thin

coats totalling about 3mm. Externally, the process is the same for the first two coats but the Top Coat Plaster (external) should be applied in one coat of about 4mm-6mm.

- each coat should be dampened before applying the next coat.



Nibs forming at the back of the laths give a 'finger hold'

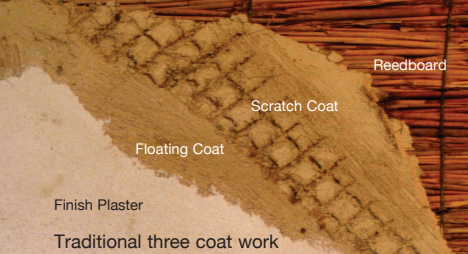


Scratch coat being scratched with a wire comb/lath scratcher!

- apply the first coat of Lime Base Coat Plaster (scratch coat) with a steel float evenly. When it has firmed up, scratch the plaster (to about 3-4mm depth) diagonally using a wire scratcher. This could be the same day on brick or stone or, up to a week or more, on lath. This coat takes up any shrinkage and may crack. You need only worry if the plaster becomes detached from the background.
- apply the next (floating) coat - as above but instead of scratching, you need to float the plaster whilst it is still soft enough to take the indent of your thumb. This will compact the plaster to avoid shrinkage cracks as well as flattening the wall. It should be carried out using either a straight grained (for uneven surfaces) or cross grained (for flat walls and ceilings) wooden float, not a plastic float. Floating is hard physical work, sometimes a little water sprayed onto the surface can help the process.
- after the floating coat has been floated and the plaster has firmed up, use a devil float to form the key for the finish coat, this is done by rubbing the surface of the float coat in small, circular motions to achieve a depth of not less than 2mm.



- the surface of the floating coat should be scraped down with the side of the trowel and then brushed to remove loose material whilst still green (holding moisture).



# Fat lime plaster

## Application Guide

## Plastering with fat lime plaster

- internally, lay one thin coat of the Internal Top Coat Plaster at about 2mm onto the surface. Once it has firmed up, scour the surface with a well-worn wooden float. Lay on the second coat of Lime Top Coat Plaster. When this has firmed up, trowel up with a steel trowel, using a light spray of water to remove the fat – do not over trowel. If required, wet the surface before working it with the trowel or sponge floats, by misting with water, however over-wetting should be avoided because it will draw too much lime to the surface.
- externally, one coat at 4-6mm of the External Lime Top Coat Plaster can be applied.

### Protection of the work

- allow each coat to 'go off' before applying the next one. As a guide, it takes one-two weeks for the first coat, one week for the second, and a few days for the finish coat. This will vary considerably depending on weather conditions and substrate. Each coat should be hard enough to resist indentation from a knuckle, but be soft enough to scratch with a fingernail.
- protect new work as conditions dictate eg for hot, dry or windy weather, damp hessian and plastic sheeting may be required to prevent rapid drying. Gentle spraying may be necessary if areas of plaster or render are drying too quickly. Note often the top needs to be treated differently to the bottom of the plaster/render as moisture moves down and different elevations may need different levels of protection.
- do not use dehumidifiers and heaters to speed up the set. Good, even ventilation is key, accelerated drying will prevent carbonation and may cause the plaster/render to fail. Gentle heat may be used cautiously in cold, damp buildings.
- protect new lime plaster or render from frost - external work, wherever possible should not be carried out when temperatures are likely to fall below 5°C. before carbonation has taken place. If work must continue externally, although not advisable, the scaffold should be fully enclosed and well-circulated heating supplied.
- protect from rain - heavy rain can wash the lime out, or at least, draw it to the surface before the render has carbonated. A new render should be protected until surface carbonation has taken place.

### Storage

- store airtight and frost-free.
- plaster with natural hair must be used within four weeks otherwise more hair will need to be added.
- premixed plasters/renders will become hard over time, although still usable, they will take considerable effort to 'knock up'. For easier results use as soon as possible. Use within 4 weeks

### After care

Your finished lime plaster will care for your building for years to come as well as helping to control the humidity of the internal environment. It gives a beautiful finish that no modern plaster can replicate. We highly recommend that you finish it with a 'breathable' and preferably a natural paint, your choice will depend on the level of durability, required vapour control and desired aesthetic. Call 01874 611350 for advice or visit [www.lime.org.uk](http://www.lime.org.uk).

### Additional Information

Courses are run regularly for contractors, home owners and specifiers which can save much time on-site as well as ensuring a successful project. Please see [www.lime.org.uk](http://www.lime.org.uk) for further information and for links to our video 'how to' application guides.

### Approximate coverage rates

Plaster	1 x 25kg bag covers 1sqm @ 7-8mm thick (scratch/floating coats)
	1 x 25kg bag covers 3sqm @ 3mm thick (finish coat)
Hair	1/2-3/4 of a bundle (50-75mm (2"-3") in length) per bell mixer load
	1.5kg per tonne of mix

New quantity calculators are now available on [www.lime.org.uk](http://www.lime.org.uk) to help you calculate how much plaster you might need for each coat.

### Health and Safety Information

#### WARNING



**Skin Irritation 2 H315** Causes skin irritation.

**STOT SE 3 H335** May cause respiratory problems.

#### DANGER



**Eye Damage 1 H318** Causes serious eye damage.

#### Precautionary Statements

**P102** Keep out of reach of children.

**P280** Wear protective gloves, eye protection/face mask.

**P305 + P351 + P310** If in eyes rinse cautiously with water for several minutes and immediately get medical assistance.

**P352 + P352** If on skin, wash affected parts immediately with plenty of soap and water.

For further information about the whole subject and illustrated diagrams of lime plastering and pointing techniques, see **The Lime Handbook** now available to order on [www.lime.org.uk](http://www.lime.org.uk)

© Copyright - please do not infringe our copyright by copying or reproducing any part of this document.

Disclaimer - no responsibility can be accepted for any errors or omissions or any loss or damage as a result of using the information provided in these guidelines.

Units 5 and 12, Brecon Enterprise Park, Brecon,  
Powys LD3 8BT Tel: 01874 611350 Fax: 01874 622774  
Email: [tymawr@lime.org.uk](mailto:tymawr@lime.org.uk) [www.lime.org.uk](http://www.lime.org.uk)



Tŷ-Mawr