



GUIDE SHEET

LIMEWASH

This guidesheet contains advice on the following:

- Limewashing onto new lime renders and plasters
- Washing over old coats of limewash
- Limewashing onto masonry and emulsion paints

LIMEWASHING ON LIME RENDERS AND PLASTERS

Limewash is the preferred finish on traditional buildings as it allows the structure to "breathe", allowing any damp present to evaporate away rather than be trapped in the wall. It has a matt finish and helps consolidate and improve the surface of both old and new plaster physically and visually. We supply a range of colours as well as white. Because limewashes are porous paints they shade in depth of colour to reflect the dampness of the background material.

Generally limewash should be applied thinly and be allowed to dry out slowly. Our limewash is prepared from the finest quality lime putty slaked from Buxton quicklime. It will develop a fine finish over several coats, we recommend a minimum of four on new render and plaster. Our limewash has a small quantity of linseed oil added to reduce "dusting" and improve external water shedding. Historically, many ingredients were added to limewashes to modify their performance such as common salt, casein, tallow and linseed oil.

Preparation

The surface to be limewashed should be brushed and washed free of any loose particles, dust, dirt, lichen etc. If there is mould growth the surface should be treated with a fungicide (e.g. a weak bleach solution) which should be rinsed off before limewashing.

Damping

It is very important for dry surfaces but may not be necessary if limewashing new lime render or lime plaster which has yet to totally dry out. Spray the area before limewashing with water as this prevents the water in the limewash from being sucked out too quickly on application.

First Coat

Whisk the limewash thoroughly before use as the putty will settle out. Brush the limewash onto the dampened area with a large emulsion brush. Work it well into any cracks or joints but don't let it build up too thickly as it can craze on drying out. Remember it's a wash and

will look transparent on application but will dry opaque. Coloured limewashes dry to a much lighter shade than the wet limewash.

Subsequent Coats

Four coats are recommended on new external lime render, three coats on new internal lime plaster. Ideally leave each coat to cure for a minimum of a couple of days. For each further coat, follow the same procedure of misting well before limewashing and allowing to dry out slowly, with light spraying if necessary. Protect external limewash from the weather if necessary. A thin coat curing slowly in the presence of moisture will form a more crystalline, hardwearing surface compared to a chalky finish if a thick coat dries out too quickly. After the initial carbonation and curing limewash will continue to strengthen for several weeks.

Frost

As limewash is a water-based paint, it shouldn't be applied in low temperatures of less than 5°C or if there's a risk of frost.

Quantities

A litre of limewash will cover 3 - 6 square metres for one coat, depending on the smoothness and porosity of the surface being limewashed.

Safety

Limewash is caustic. Always wear eye protection and protective gloves and clothing and follow the safety instructions on the labels.

Our advice and information are given in good faith. It's important that users satisfy themselves that they've chosen an appropriate product and have a suitably skilled workforce.

WASHING OVER OLD COATS OF LIMEWASH

Further to the general guidance above, "Using Limewash on new lime renders", we would suggest the following points are noted

- Remove flaking limewash with a stiff brush e.g. a churn brush to get rid of loose material. As it is possible that chalkiness/dust on the original limewash is reducing the quality of key of the new limewash its important to make sure that the original surface is well wetted. Generally it easier to ensure that the walls are adequately wetted with a spray rather than a brush.
- This may involve two or three sprayings, some ½-1 hour prior to limewashing to soak well into the surface and a top up a few minutes prior to limewashing.
- For the same reason of improving the key for the first coat, apply this coat thinly. As we make a relatively thick limewash you can dilute this first coat with a little clean water if necessary and ensure that it dries out slowly. This may involve light spraying if necessary to slow down the drying process where the background is especially "thirsty" or the weather windy or hot.

- It may be prudent to test how well this first coat has bonded on a trial panel before proceeding to additional coats.
- Ideally leave each coat to cure for a minimum of a couple of days. For any further coats, follow the same procedure of misting well before limewashing and allowing to dry out slowly, with light spraying if necessary. Protect external limewash from the weather if necessary. A thin coat curing slowly in the presence of moisture will form a more crystalline, hardwearing surface compared to a chalky finish if a thick coat dries out too quickly. After the initial carbonation and curing a limewash will continue to strengthen for several weeks.

If adding casein into a limewash, mix the casein with some warm water first. Always add water to powder and slowly whisk to form a paste and leave to stand for 30 minutes. Slowly whisk in more water until a similar consistency as the limewash is achieved. Leave to stand for a further 15 minutes and then whisk well into the limewash.

Poor bonding of a new limewash onto an existing limewash can result from:

- Additives in the original limewash such as tallow or raw linseed oil, which reduce the porosity and hence the key for the new limewash.
- Surface dusting or chalking, which may detract from a sufficiently consolidated surface for the new paint to key onto.
- Applying the new limewash too thickly. Our limewash is already relatively thick and easy to apply with or without added casein and must be applied thinly.
- Over rapid drying caused by insufficient damping down prior to limewashing or insufficient slowing down of the drying process e.g. by spraying or physical protection.
- Applying in low temperatures or when there's a risk of frost.

Safety

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LIMEWASHING ONTO MASONRY AND EMULSION PAINTS

Further to the general guidance above "Using Limewash on new lime renders", we would suggest the following points are noted.

Please note the safety precautions on the tubs and protect eyes and skin.

It is difficult to limewash onto surfaces painted with masonry or vinyl emulsion paint. There are a number of factors to be considered.

- The previous paint system won't be very porous, and the benefits of the limewash are therefore aesthetic rather than letting the building "breathe". Because the background material isn't porous the limewash, being water based, isn't able to soak into the pores of the material. Instead it will tend to sit on the surface. This will make it prone to flaking or weathering at a faster rate than usual.
- A sample area should be tested to judge adhesion of the limewash, the ease of painting and the degree of coverage achievable with two or three coats.
- It may be necessary to add ingredients to the limewash to improve its adhesion and durability. Traditionally both casein (from skimmed milk) and common salt have been

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added. There are also a number of old recipes using various sources of albumin, such as egg white, milk, blood and plant seeds. Albumin is a simple protein that combines with slaked lime to produce hardening properties.

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- Preparation is very important; the surface to be limewashed should be brushed and washed free of any loose particles, dust, dirt, lichen etc. If there is mould growth the surface should be treated with a fungicide (e.g. a weak bleach solution) which should be rinsed off before limewashing.

Safety

Limewash is caustic. Always wear eye protection and protective gloves and clothing and follow the safety instructions on the labels.

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