

# Lime Wash



Photograph courtesy of Clive Fewins; Journalist

**Lime Wash** is an early form of paint. It has different characteristics to modern paints and needs to be applied in a different way.

Essentially what is being applied is **calcium hydroxide** suspended in water, as the water evaporates the **calcium hydroxide** readily combines with **carbon dioxide** in the atmosphere to form **calcium carbonate**. (This process is known as **carbonation**). As the carbonation process takes place the lime wash hardens and develops its colour and bonds to the substrate. Where lime wash is being applied without colour it will harden white, the degree of whiteness is a function of the purity of the raw material. After hardening, lime wash remains vapour permeable, and therefore will not trap moisture in the substrate to which it is applied.

Most Lime Wash has the consistency of skimmed-milk. The Lime Wash we sell at **Old House Store** is different, and has been specially formulated for a richer, creamier consistency. The following information is intended specifically for using **Old House Store 'Special Lime Wash'**.

As supplied, the lime content of the lime wash may have settled out and the container may have several inches of apparently clear water on top. This should not be discarded, but the contents of the tub should be thoroughly stirred to a creamy consistency. If the lime wash has been coloured the water on top will still look clear. **It is important not to tip the water off.**

Lime wash is normally applied to a sympathetically porous background, such as sand-stone, lime plaster, clay bricks or lime render. Any organic growth should be treated with a suitable biocide in accordance with the manufacturers instructions, and dead material brushed off. The background should be washed to remove dust and grime, then allowed to dry to a damp state. Even if you are confident that your wall is clean, it is important to dampen the brickwork and the mortar joints, so that they are damp rather than the surface of the wall being wet (we use plant sprayers). This might mean spraying it and letting it soak in for a few hours. If your wall is very dry it may be wise to spray it the day before as well. By doing this you prevent the Lime Wash from drying too quickly, helping it to bond better and avoid cracking.

Apply lime wash to the substrate with a **Lime Wash Brush**, using horizontal,

vertical and diagonal strokes, ensuring the lime wash is applied as thinly and evenly as possible and is burnished into the surface. Overly heavy coats will craze and crack when they harden and dry. If this occurs, wash off with hot water and a stiff brush and ensure that the new covering is properly applied.

Containers of lime wash should be constantly stirred during application to ensure even distribution of lime and pigment. After use brushes should be washed in clean running water.

Lime wash, coloured or otherwise, is semi translucent when applied; do not assume that because of this, more should be applied to build up the finish, quite the reverse is true. Allow the first coat to dry fully before applying the second coat and so on, lightly dampening the background before applying the next coat. The lime wash will harden and the colour will fix as the carbonation process takes place.

Lime wash may be thinned with clean drinking water if necessary, taking care with pigmented lime wash to use the same amount of water for each application, thereby ensuring uniformity of colour.

When lime wash is to be used on new harling work, it should be applied as soon as the harling is capable of taking the abrading action of the brush without loss of surface materials.

***Protect from strong winds and direct sunlight during the drying out period where possible***

## **Coverage**

On a flat porous substrate an average of 10 litres will be required to apply 3 coats to an area of 12- 16m<sup>2</sup>. It should be applied at about 20 sq. metres per hour (depending on the background) if it is being applied properly, i.e. not too thickly and properly worked in. Harling has a very much larger surface area than a flat finish and this should be taken into account when calculating the amounts required.

Lime wash is a beautiful material which, although apparently less durable than modern coatings, remains attractive even as it gradually wears away. It develops a unique patina which is unrivalled by modern masonry paints. Of greater importance, it allows the building to breathe, remaining vapour permeable and softer than the substrate, and having sacrificial qualities. It is a traditional, inexpensive coating which gives protection, beauty and durability to lime harling, plasterwork and masonry.