Maintenance Matters!
Historic buildings

Limewash

Llywodraeth Cynulliad Cymru
Welsh Assembly Government

www.cymru.gov.uk

You will need:

- protective clothing, goggles, gloves and dust mask (if mixing from a powder), ☐
- buckets, ☐
- sieve, ☐
- whisk, ☐
- paint kettle, ☐
- stiff-bristled churn brush, ☐
- masonry paint brushes, ☐
- pump-action garden sprayer. ☐

In most parts of Wales, stone buildings were traditionally limewashed externally as a matter of course for practical, as well as aesthetic, reasons. It provides a protective coating, which acts as a barrier against penetrating damp. While providing a good weatherproof cover, limewash is also permeable, allowing any water within the structure to evaporate through the surface. It does, however, need to be applied regularly. Binders, such as casein and tallow can be added to improve adhesion and water shedding, but these can sometimes encourage mould growth unless a biocide is added. They also reduce permeability, which may make them unsuitable in some situations.

Although limewash is naturally white and this was the traditional colour used almost invariably on outbuildings, natural pigments were often added for use on higher status buildings, such as farmhouses and cottages. The colours ranged from soft dark reds and earth colours to pinks, peaches and creams. Limewash can appear blotchy, particularly in wet weather, but this is part of the charm and subtlety of the material.

Limewash adheres well to lime plasters and renders, as well as stone, brick and similar porous materials. It does not tend to stick to less permeable materials and finishes, such as modern masonry paints.

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Although limewash can be made on site using quicklime or lime putty, ready-made mixes in a range of colours are available from many builders' merchants and specialist suppliers. All lime products are highly caustic, so wear protective clothing, including goggles and gloves or barrier cream. If using lime in powdered form, wear a dust mask.

Prepare the surface to be limewashed thoroughly by removing all dust, dirt and lichen. If necessary, treat the area with a dilute bleach solution (1 part bleach to 10 parts water), which acts as a biocide, rinsing the surface well with clean water after use. Carry out any repairs or repointing necessary using lime mortar. Deep holes in stonework should be filled using lime mortar and small stones, known as 'galettes' or 'pinnings'. The mortar should be allowed to carbonate before the limewash is applied.

The heavy particles in limewash will quickly settle, so whisk thoroughly before applying and again after every 30 minutes during use. It should have the consistency of milk. Thoroughly dampen the surface of the material to be limewashed to slow down suction. This is particularly important if the underlying material is very porous, as limewash will fail if it dries out too quickly or if it is applied too thickly.

Coats should be as thin as possible and applied vigorously using a stiff brush to make sure that crevices are filled. Protect the limewash from rain, strong sunshine and winds using damp hessian or plastic sheeting, and allow a minimum of 12 hours between coats.

For use on new render or exposed masonry, allow six coats to make sure a good protective layer is built up. Although it was traditional to apply one fresh coat of limewash annually, a well-applied limewash, particularly in a sheltered location, may only require reapplication once every five years. The surface should be brushed down and treated with a biocide if necessary and three coats of limewash applied.