

Internal plaster walls repair methodology (Lime)

The internal plaster walls will be carried out using the same techniques and materials as the original wall.
Traditional lime plaster.

Lath and plaster on timber framework.

The laths are horizontal strips of wood (normally about 25mm by 6mm (1 by 1/4 inch)) fixed by nails to vertical upright timbers forming the framework of the wall. The laths are spaced to give a gap of about 6mm (1/4 inch) between them – this gap provided the 'key' for the plaster coating.

Lath and plaster walls were traditionally covered with three coatings of different lime mixtures:

The first coating applied (referred to as the render layer) was applied so that it partly went through the gaps between the laths so achieving a strong bond – this coating was about 8mm (3/8 inch) thick and was left with a unsmoothed surface.

The second coating (referred to as the floating layer) was applied to provide a much smoother surface for the final coating – this second coating was about 6mm (1/4 inch) thick.

The third and final coating (referred to as the setting layer) was about 3mm (1/8 inch) thick and was smoothed off to give a suitable finish for decorating.

The first and second coatings were typically a 1:3 mixture of lime putty to clean sharp sand; often animal hair was mixed into the mixture to help it bind together. The third layer was typically either just lime putty or a 3:1 lime putty to fine sand mixture.

Plaster on masonry wall

Lime rendering is generally applied in 3 coats, but it is common to find 2 coats or even single coat work in vernacular or early structures. In 3 coat work.

The first coat on masonry or brickwork is generally known as the scratch coat or render coat. This coat is applied at a maximum thickness of 10mm and is applied by use of a steel trowel or thrown onto the wall by use of a harling trowel and then flattened in by the steel trowel.

This second coat is called the floating coat and is the coat, which is straightened to ensure a flat and even surface. Once sufficiently set the render should be rubbed up with a normal float and finished with a devil float to slightly score, forming a key for the topcoat of plaster.

The second coat should be treated the same as the first, and applied before the first coat has developed too much of a set

When the coat has firmed up but has not gone hard, the plaster is keyed or scratched up to produce a key for the following coats.

The final coat is treated much the same as the previous coats, assuming any straightening required has been carried out prior to this point. Topcoat plasters will normally have a greater lime content and use a finer sand. Once the surface has been laid, avoid rubbing up the work too soon, leaving it for as long as is practically possible.

Retaining of floors

Tiles

Where floor tiles are to be retained but covered over with a new finish, A ply board covering to preserve the original floor tiles will be laid over the top. Fixing down of these ply covering will involve using a small gauge screw, plugged between the joists of the tiles so not to effect the face of the tile. By using ply this enables a new floor covering to be fixed to this surface leaving the original service undisturbed.

Floorboards

Where floorboards are to be retained but covered over with a new finish, A ply board covering to preserve the original floorboards will be laid over the top. Fixing down of these ply covering will involve using a small gauge screw between the joists of the board so not to effect the face of the board. By using ply this enables a new floor covering to be fixed to this surface leaving the original service undisturbed.