



**Manufacture and retailer
of Hot Lime Mortar and Lime Insulation**

Lime Plastering Guide Sheet

Health and Safety Info:

Always wear safety glasses whilst working with lime materials and products, if you do get any splashes in your eyes use eye wash, if this doesn't solve it go to A&E.
It's advisable to wear gloves as lime dries your skin.

The Mortar:

There are different types of lime mortar, but it is best to use a feeble mortar for internal works. Hot mix lime mortar is 100% breathable is the best suited.

The sand in the mortar will be a sharp sand, I generally use Cardewmires or Nosterfield. The Cardewmires sand will let you put the plaster on in 10mm layers, whilst the Nosterfield will be put on at 7-8 mm layers. The size of the largest aggregate in the sand determines the thickness you can do in one layer. Thicker scratch coats have the addition of hair or fibres.

The mortar wants to be knocked up by running it back into a mixer, this will bring it back to life and normally only takes a few minutes. A small amount of water can be added if needed.

If the property is listed the mortar should have animal hair added to the scratch coat, this can be goat, horse or cow hair, predominantly horse and goat hair is used. If the property is not listed a man made fibre can be used, I prefer the fibrin fibres which disperse very well.

Adding animal hair is not an easy or quick process, the goat hair comes in bundles normally about 100mm long. These need to be cut down into shorter lengths then added to the mortar, this can be done in different ways depending on what type of mixer you have.

Belle mixers are not good for this job as the hair seems to cling to the paddles, baron mixers are much better. I have seen some people add the hair in a wheel barrow and use a shovel to disperse the hair, the hair needs to be no more than 25mm long. The fibres can be added once the mortar is the correct consistency. To check if you have enough hair/fibres in your mix, put a trowel in the mortar, tap the trowel and you want to see a beard all the way round the trowel.



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Preparation:

Wet the wall down before applying the mortar, if the wall is not level it will need to be dubbed out. This should be done with mortar and little galleting stones if required, hair can be added to the dubbing out mortar too.

leave the dubbing out in an open pore state. This means don't close it with a steel trowel effect, this reduces its breathability. Then mist the walls after it's been finished, this will help slow down the carbonation and reduce the chance of shrinkage. This should also be done the following day.

Scratch Coat:

If the mortar is too wet will cause more shrinkage, if it is too dry you will end up with a very sore arm and shoulder, try to get the right balance!!

Once the dubbing out is firm enough to take the scratch coat it can be applied, therefore damp the wall before applying the plaster. The plaster should be applied with a steel float, then when firm go over it with a plastic/wood float to open the pores ready to scratch it up.

I have seen jobs fail due to scratching up with that's used for cement plastering. The opening up and scratching should be done when the plaster has stiffened, this could be 2 hours later but this depends on temperature and humidity.

I think the best tool for this is a wooden lath, the scratch should be done in diamond shapes approximately every 100mm. The scratch should be approximately 4mm deep and 4mm wide, this is done so the aggregate in the sand can fit into the scratch and the water will not trap in the scratch which is what happens if the scratch is done in horizontal lines.

Once finished mist the plaster a few times that day and day/days following, if you see signs of shrinkage push them in with your finger. Keeping the mortar down to 10mm and having enough hair/fibres in the plaster will prevent shrinkage along with damping the wall before work commences.

Float Coat:

The next layer is identical to above barring hair/fibres and the scratch, this time the scratch is done with a devil float - a plastic float with 2 screws in it approx. 1-2mm protruding. This will give a key for the skim coat which is made up of lime and silica sand. Do not let the float coat go too dry, it can be slightly green, if too dry there is more chance that the skim coat will shrink.



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The Skim Coat:

The skim must not be put on any thicker than 2mm in any one application, the wall must be dampened down before applying the skim. This wants to be put on with a steel float, then if another 2mm is needed this should be put on a couple of hours later. If you try to put on 4mm in one go it will blister and look a mess, thus causing massive shrinkage.

Once you have done this use a steel float, sponge and sprayer to get the finish you require, this is done once the skim has tightened a little. If the wall is renowned for being wet, a sponge finish would be better to give it more breathability.

Do the smallest wall first so you can work out how long it is going to take to firm up before you can finish the skim, all the skim should be done in one go if you are doing a large wall.

Mist the wall that day and the following day or two, this will slow the carbonation down and make it a much better finish. Do not use a dehumidifier, fan heater or wood burner, a little radiator can be used to take the chill off the room but be sensible.

Paint:

Remember to use a breathable paint like limewash or Keim paint.