

POINTING WITH LIME MORTAR

Whether using a natural hydraulic lime or a lime putty based mortar, the application techniques are identical.

Carefully choose which lime is most appropriate for the situation, selecting a weaker mix for a weaker, more porous masonry. If not purchasing a pre-mixed mortar then next select the correct sands for texture and colour. as required.

Generally, [NHL2](#) or air dried lime putty mortars are employed internally with either NHL2, 3.5 or lime putty with [pozzolan additives](#) tend to be used externally.

Preparation:

Any existing defective pointing must be raked out to a depth usually equal to twice the width of the joint, but generally not less than 20mm. The back of the joint should be roughly square in profile. Plugging chisels ensure that the stone or bricks aren't forced apart. Never use an angle grinder or similar type of equipment that may destroy the masonry.



Dampening:

The joints must be dampened, with enough time left for the stone or brick faces to dry to prevent smearing. The mortar should be as dry as it is practicable to point with. This allows maximum compaction in the joint, reduces shrinkage cracking and reduces the tendency to smear on the stone faces.

Premixing:

All lime mortars benefit from being pre-mixed before being used but with a lime mortar based on a natural hydraulic lime powder it should be around 30 minutes before required and a lime putty mortar it should be a few days before application. This is unnecessary when purchased pre-mixed. When ready to carry out the work, the mortar is then "knocked up" (agitated/mixed) again immediately prior to use to plasticise them - this helps to reduce shrinkage in the mortar. Any [pozzolan](#) additive should be mixed in at the final knocking-up stage and not before.

Selecting the mortar:

It is very important to select the correct grade of NHL and then mix the correct ratio of sand to NHL in order that the strength and vapour permeability is appropriate for the masonry. Some [NHL3.5](#) mixes have proved too strong for soft sandstone or soft bricks. We would never use NHL5 for pointing and would tend to generally mix a mortar based on 3 parts sharp sand and 1 part NHL3.5 by volume. This would change to NHL2 or a lime putty mix if the masonry is very soft.



Pointing:

Start at the top of a wall to allow for cleaning up and spraying to continue. Use a pointing key or metal spatula and force the mortar in from a hawk. Joints deeper than 20mm will need an initial dubbing out as shrinkage can occur otherwise. Finish flush or rebate a little if the joints have widened with age or for personal preference as rebating highlights the stone more.



When the mortar is "green hard" (firm enough to brush without smearing but still malleable enough to work), brush or tamp the joints with a churn brush to enhance the aggregate and give a coarser texture to the pointing. During this process, it is common to throw a dry indigenous soil at the soft lime mortar to pre-weather and allow it to blend in to the wall as a fresh, bright lime mortar is not always desired.

Protection:

External pointing should be mist sprayed to control drying and protected from direct sun and wind. In winter it should be protected from rain and frost. Hessian cloth is recommended.

Quantities:

20kg of lime putty mortar will point 2-3 square metres of average sized stonework or 1- 1.5 square metres of brickwork based on a 10mm joint and 20mm depth.

Safety:

Limes are 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.

Time of year:

Please note that great care should be taken not to be applied too late in the year or too soon in spring or else frost damage may occur. It is important to prevent frost crystals forming within the mortar soon after application. The ultimate hardening process takes up to a month for each millimetre of thickness. Therefore it may take 20 months before mortar has carbonated to a depth of 20mm.

It is recommended that trial mixes be produced to establish the optimum properties for a particular application.

For more information please contact the Mike Wye & Associates friendly technical sales team, we are only too pleased to advise on materials we supply.

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