CLM66 - Data Sheet

Issue 2 – Nov 2021

PRODUCT

Cornish Lime ready-mixed top coat plaster CLM66 is a ready-to-use plaster that simply requires 'knocking-up' prior to application. It is possible to add water if the plaster is too stiff for your desired application consistency.

Mix Ratio 2:3

Lime Putty : Sand and chalk

It is made using our top-quality lime putty which will be a guaranteed minimum four months mature, mixed with double washed superfine silica sand along with a chalk dust. The mix ratio (Lime : Sand) for a finishing coat is varied according to the required finish; Lime rich mixes can vary from two or three parts lime to one of sand, the leanest mix being one part of lime to two or three parts sand. The more lime added the easier it will be to achieve a smoother "polished" type surface, whereas a leaner mix is better suited to a more open textured float finish.

For custom mix ratios please contact us.

USAGE

CLM66 is used as an internal top coat finishing plaster on top of an appropriately prepared undercoat render. The following information is relevant to its use as such; it does have other appropriate uses and please contact us if you have any questions regarding alternative usage.

This material cannot be applied directly to plasterboard, grip coats will be required, please contact us for more information

COVERAGE

Coverage at 3mm thick: 3.5 M^2/25Kg - 140 M^2/Tonne

ADVANTAGES

- Quality controlled production
- Consistency of mix ratio
- Finer finish than most site mixed options
- Free from silicones, acrylics and other harmful additives

COLOURS

CLM66 is entirely natural in colour. No pigments or colourants are added.

For applications where colour is important we strongly advise that sufficient quantities of plaster are purchased and all bags from the same batch to ensure consistency.

PREPARATION

In general, this will be determined by the purpose and application of the plaster.

We would expect appropriate preparation in accordance with best practice; where the surface is clean, free of dust and other debris. Where necessary the background should be adequately dampened to promote adhesion/bond with the host surface.

Dense impervious backgrounds/material are unlikely to be very absorbent and require little to no dampening, whereas more absorbent background/materials require adequate dampening in order to prevent rapid drying.

MIXING

CLM66 is ready to use, just needs 'knocking up', in most cases this will bring the plaster to a useable consistency. A small amount of water can be added to soften the plaster further if desired however this should be kept to a minimum as higher water addition rates can lead to plastic shrinkage cracking. If water is added it should be mixed through with a whisk until you achieve a consistent mix.

APPLICATION

The following notes are for guidance purposes only and not intended as a definitive guide to finishing plaster.

The final coat is invariably more lime rich than the previous coats which is against all conventions for plastering and as such it must be thinner than the last undercoat (the "float coat"). A Lime Putty finishing plaster is perfectly OK onto an NHL based undercoat; however, we would not advise this the other way around.

It is important to note that the float coat, receiving the finishing plaster, should be finished to the final plane so as to allow a uniform and even thickness for the finishing coat. The finishing coat should not be used to even out any discrepancies in the float coat as this can lead to differential drying as a result of a thickness variation in the plaster. This is of the utmost importance for the execution of finishing techniques as the plaster should dry out consistently and evenly to assist in the finishing process, regardless of the tools or methods chosen to achieve the desired finish.

Like any lime render/plaster the background should be adequately dampened with water to control suction before applying the finishing coat, the best method for this will be a spray application delivering a uniform volume of water appropriate to the degree of suction control needed, e.g. an open textured float coat will be more absorbent than one that has been closed tighter as a function of excessive floating; the background substrate can also impact on absorption rates as well. Lime render/plaster should never be allowed to dry too quickly.

The application of a "finishing Coat" demands a skill set unlike that for the undercoats and the biggest issue will be in applying a consistently even thickness which in turn will greatly aid the finishing process.

Finishing Plaster is laid on in two, tight layers aiming for 2mm but to a total thickness no greater than 3mm which should be regarded as an absolute maximum. Too thick a finishing coat will increase the risk of stress cracking. Each layer is laid on as thin as possible, working in alternate directions for each coat; subsequent coats should be laid over the previous one as soon as it has had a chance to pick-up or stiffen but it should not be left too long. When "ready" we advise the use of a cross grained float to scour the surface to compact and consolidate the plaster to achieve a relatively flat surface; during this process there may well be times when additional water lightly sprayed onto the surface will benefit the floating action. However, it is important not too over wet the surface using the least amount possible but enough to aid the process.

Depending on the degree of finish required the surface can be left as a float finish or the most popular in our experience is for further working with a sponge/float creating a surface similar to that of a very fine sandpaper, a relatively easy finish to achieve and dampened as necessary to aid finishing.

A smooth glass like finish is produced by trowelling the surface with a steel trowel, dampened as necessary to achieve a fine closed finish. It is advisable to use long sweeps for the trowel in a singular direction, normally top to bottom. Such finishes will be much more difficult to achieve with mixes that are lime lean, including our own stock mix; we would advise a mix ratio of 1:1 or richer for smooth glass like finishes. Fine finishes like this will not have the same texture as gypsum plasters; they will be ultra matt rather than glossy.

Super smooth glaze like finishes should be avoided if the intention is to paint the surface as Limewash or paint will have limited uptake on very smooth surfaces unless sanded down to open the sealed surface.

Patching finished lime plaster into a repair requires care. The finish plaster containing sand will abrade and degrade existing edges leading to a dull surface around the repair. A clean break of a few mm is necessary around the patch and this can be filled later with Cornish Lime "Putty fine surface filler" when the patch is fully hardened.

Decoration: Lime paint, lime wash, Beeck's and Aglaia are appropriate, breathable finishes for new work. Paint finishes should only be applied to fully dry and set work; it is not advised to apply wallpaper for up to 12 months.

Cornish Lime prides itself on the support we offer our customers, however, the advice given here is provided in good faith and for guidance purposes only, and it is not intended as a specification. It is up to the user of these products to ensure that they have selected the most appropriate product and that best working practices are followed using the necessary skills. Adequate preparation, aftercare and protection are essential.

AVOIDING THE PITFALLS

CLM66 is made from Lime Putty, a Non-Hydraulic Lime that sets through exposure to atmospheric Carbon Dioxide in the presence of moisture. This process will be influenced by climatic conditions and will behave differently depending on ambient temperatures. Work should never be undertaken in frosty conditions or where the temperature is likely to fall below 5 degrees C during the execution of the work, or until the plaster has hardened.

Protection should remain in place for as long as necessary. Ensure that the rate of drying is consistent and that strong draughts are excluded from the working area. This is particularly important where a building has windows removed or doors open. Heating regimes should be tempered so not to force dry the plaster.

Generally speaking; lime plaster will be slower to harden in the winter than in the summer and adequate measures should be deployed to protect it; it should never be allowed to dry out too quickly. Never force the drying by introducing forced or excessive heating. If heating is required to maintain a proper working temperature, use propane heating, this has the effect of producing both moisture and heat simultaneously. Ensure the temperature is adequately controlled.

The best advice we can offer is "that all Limes need babysitting in their infancy"

PACKAGING

This product is supplied in 25kg polythene bags. Or tonne bags.

Pallets contain 40 x 25kg bag (1 tonne pallets).

The plastic used is of prime quality and suitable for recycling

STORAGE

This product should be stored in dry conditions, in unopened bags and clear from the ground.

Supplied from stock our CLM66 would ideally have been mixed for at least one week before we supply it, unless it has been made to order. Ideally any mortar/plaster made with lime Putty should be allowed to stand for at least seven days prior to application and should always be stored in appropriate conditions, free from frost and denied contact with the atmosphere. The shelf life of CLM66 in tubs is technically indefinite if kept underwater or damp, but realistically in our standard polythene bags it should be at least 12 months.

HEALTH AND SAFETY

RISK PHRASES: R36 / R37 / R38 / R43

- Avoid contact with skin and eyes.
- Contact with wet mortar may cause irritation, dermatitis and/or burns.
- Contact between lime powder and body fluid (sweat, eye fluid etc.) may cause skin burns and respiratory irritation, dermatitis or burns.

SAFETY PHRASES: S2 / S24/25 / S26 / S37

- Avoid eye and skin contact by wearing suitable eye protection, protective clothing and gloves.
- Avoid breathing dust.
- Keep out of reach of children.
- On contact with skin and/or eyes, rinse immediately with clean water and seek medical attention.

DECLARATION:

- This product contains no NHL, pozzolans or cement.
- All Cornish Lime Companies manufactured products are produced under an external assessed ISO9001:2015 management system