CLM28F - Data Sheet

Issue 3 – February 2023

PRODUCT

Cornish Lime ready-mixed coarse mortar, CLM28F, is a ready-to-use building and rendering mix that simply requires 'knocking-up' prior to application. It is possible to add water if the mix is too stiff for your desired application consistency.

Mix Ratio 1:3 - Mature Lime Putty : Sand plus 18mm fibres
For custom mix ratios please contact us.

It is made using our top-quality lime putty which will be a guaranteed minimum four months mature, mixed with a 5mm down flint sand.

USAGE

CLM28F is used as an internal or external coarse render on top of an appropriately prepared background including but not limited to stonework, blockwork, brickwork and lath. It can also be used as a building mortar however the fibres will be visible after finishing if this is a concern. 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 or tanking materials.

COVERAGE

Coverage for render at 12.5mm thick: 1 m^2/25Kg - 40 m^2/Tonne.
These figures are given as guidance only, uneven surfaces can and will change consumption rates.

ADVANTAGES

- Quality controlled production
- Consistency of mix ratio
- Free from silicones, acrylics and other harmful additives

COLOURS

CLM28F 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. For longer term projects we advise contacting us before purchase.

PREPARATION

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

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

CLM28F is ready to use, just needs 'knocking up', in most cases this will bring the mix to a useable consistency. While a small amount of water can be added to soften the mix further if desired, 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 (or other appropriate method) to achieve a consistent mix.

APPLICATION

Rendering: Dub out the wall to bring it to a relatively flat plane by filling pockets, voids or missing pointing mortar using as stiff a mix as achievable; ideally and where possible dubbing out works should be treated as a separate exercise carried out well in advance of the scratch or float coats and keyed to promote a bond for subsequent coats. After any dubbing out and on the assumption that the wall is ready to receive its first undercoat it should be applied at a target thickness of 10-12mm, this should be scratched using a cross-hatch pattern no deeper than 1/3 of the depth of the render. The more common 'wavey line' scratch used on modern sand and cement renders is not appropriate for this design of material. This coat should be left for a minimum of 7 to 14 days to build up in strength before application of a float coat. During this period the render should be damp cured by mist spraying and protection from direct sunlight and drying winds, preferably with damp hessian sheeting.

The float coat can also be done using the CLM28F or the non-fibred version CLM28 and should be applied at a target thickness of 8-10mm, but should not be thicker than the scratch/undercoat. The scratch coat may need mist spraying before application to control suction. Following application, the render should be ruled off finished to the desired plane, prior to floating with a wooden or plastic float to compress the surface. Lime renders should be stiffer than sand and cement at time of floating and should not drag much under the float. Optionally this can then be sponged up after it's stiffened a little more to give a smoother surface if this is to be the final coat. If this is to be the final coat fibres will very likely be visible in the finish after floating, if this is an issue we would recommend the non-fibred version with or without incorporation of an alkali-resistant glass mesh.

The float coat can be left at this point to give a coarse finish or it can be topped with a render/plaster made with a finer sand, if a top coat is to be applied then the surface should be devil floated to give a light key for the top coat.

Building: The mortar should be used as stiff as feasible but the mix must be workable. Fibres will be visible in the finished material. Often when fibred building mortars are used the mortar is recessed for later application of an "aesthetic" pointing finish to be applied at a depth of 20-25mm.

AVOIDING THE PITFALLS

CLM28F is made from Lime Putty, a Non-Hydraulic Lime that hardens 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 mortar 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 fresh works.

Generally speaking; lime mortar 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 tubs. Or tonne bags.

Pallets contain 40 x 25kg bag/tub (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. It should be kept away from freezing conditions.

Supplied from stock our CLM28F 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 CLM28F 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 externally assessed ISO9001:2015 management system