CLM28 - Data Sheet

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PRODUCT

Cornish Lime ready-mixed coarse mortar, CLM28, 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 (CLS28)
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

CLM28 is suitable for a wide range of applications such as bedding mortars or coarse (base coat) renders, internal or external, on top of appropriately prepared backgrounds including but not limited to stonework, blockwork, brickwork and lath. Used as a building mortar the coarseness from the grit present in the sand offers an aesthetically pleasing. The following information is generic relevant to its use as a render or bedding mortar; 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.
Mortar Per Tonne: Brickwork Pointing 60m^2 - Bedding 20m^2 - Stonework Pointing 40m^2
Coverage figures are given as guidance only, uneven surfaces or unusual joint sizes can and will change consumption rates. Renders are easier to calculate than bedding mortars, especially stonework.

ADVANTAGES

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

COLOURS

CLM28 is entirely natural in colour. No pigments or colourants are added.

For applications where colour is important, we strongly advise that sufficient quantities are purchased as one order from the same batch to ensure consistency, or discuss with us any long-term requirements before purchasing.

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

CLM28 is ready to use, just needs 'knocking up', in most cases this will bring the mix to a useable consistency. A small amount of water can be added to soften the mix 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 thoroughly mixed through until you achieve a consistent mix, for smaller quantities a plasterer's whisk is ideal.

RENDERING APPLICATION

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 should be applied at a target thickness of 8-10mm but should not be thicker than the scratch coat. 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.

While the float coat can be left at this point as a finish, CLM28 is made using a coarse sand and a smooth finish will be relatively difficult to achieve and is generally topped using renders/plasters with a finer sand. Where a top coat is to be applied the surface could be devil floated but certainly left with a key that's relevant to the requirements of the top coat.

Building: The mortar should be used at a consistency to suit the masonry units, a mortar for stonework would generally be much stiffer than that for laying bricks, but clearly it has to be workable.

Pointing: As above and to a consistency that allows for economic application, while remembering that the wetter a mortar is the greater the risk of drying shrinkage.

Regardless of what CLM28 is being used for it's essential that it's not allowed to dry out to quickly and works should be monitored and appropriate control measures adopted to prevent rapid drying using mist sprays, Hessian, polythene or other appropriate media.

AVOIDING THE PITFALLS

CLM28 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 very differently between the seasons, 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, which in the case of non-hydraulic mortars can be months not weeks.

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.

Curing can be managed with the addition of Pozzolans and for further information please consult us.

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 CLM28 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 CLM28 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.
- If allowed to dry 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.