



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

Method Statement:

Eden Lime Insulation Plaster System

1. Scope of Works

This method outlines the preparation, mixing, and application of Eden Lime Insulation Plaster, including backing coats and two skim finish options, suitable for heritage masonry substrates.

2. Health & Safety

- Always wear safety glasses when handling lime materials.
 - In case of eye contact, rinse immediately with eyewash. If irritation persists, seek medical attention at A&E.
 - Be cautious of splashback when using Belle mixers or industrial whisks.
 - Quicklime reacts exothermically with water—handle with care during mixing.
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3. Substrate Preparation

- Remove all dust, debris, and loose or defective plaster back to the stonework.
 - Ensure substrates are clean from any dirt or contaminants.
 - Fill voids with stone and lime mortar. Allow to dry before insulation plaster is applied.
 - On application day, thoroughly soak the wall. Begin once surface dripping has ceased.
 - For porous substrates (e.g. stone or brick), pre-soak the day before and again prior to work.
 - For high-suction backgrounds, apply a harling/splatter coat of lime to equalise suction and provide mechanical key.
 - Mesh over electrical wires and weak points to reduce shrinkage and cracking.
 - If skirting boards are being fitted, do not plaster all the way to the floor.
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4. Mixing Procedure (Backing Coats)

Equipment:

- Forced action mixer (e.g. Baron) preferred
- Belle mixer acceptable with caution
- Industrial whisk for small batches (use strong rubber tubs only)
- Hosepipe recommended for continuous water supply during mixing

Mixing Steps:

1. Measure all materials by volume using identical buckets.
2. Add 2 full buckets of water (hosepipe can assist with continuous supply).
3. Add perlite and coarse hemp; mix to wet porridge consistency.
4. Slowly introduce quicklime and additional water.
5. Mix thoroughly to ensure full slaking and prevent shrinkage or delamination.

Proportions:

Material	Volume Ratio
Perlite	2 parts
Coarse Hemp	1 part
Quicklime	0.75 part
Pozzolan	<i>Optional – avoid in primary coat on porous stone substrates</i>
Water	As required

Note: Pozzolans carbonate too quickly on porous stone (e.g. sandstone). Avoid in primary coat and extend drying time accordingly.

5. Application of Backing Coats

- For rough stone, apply a wet harling coat to achieve 90% coverage. Allow to cure for several days.
- Apply insulation plaster while still warm. Cold application (once fully slaked) may improve workability and reduce suction.
- Use steel float or harling trowel with firm pressure for compaction.
- Typical thickness: 25 mm per coat (up to 30 mm possible depending on hemp length).
- Scratch first coat with timber and allow to cure for minimum 1 week.
- Re-wet surface before applying second coat.
- Push back any cracks as they appear in the first coat while still wet to aid adherence.
- Leave second coat rough/open-pored for insulated skim; smoother finish if using standard lime skim.

Important: Do not overwork material during first pass—this can lead to delamination.

6. Skim Coat Options

A. Insulated Skim Coat

Timing: Apply approx. 1 week after backing coats (longer in colder months).

Mixing: Can be prepared the day before and re-tempered with water.

Mixing Proportions:

Material	Volume Ratio
Nosterfield Sand	1 part
Perlite	1 part
Fine Hemp	1 part
Quicklime	0.7 part
Water	As required

Application:

- Dampen wall prior to application.
 - Apply first pass at ~7 mm thickness with a stiffer mix to cover rough hemp.
 - Apply second pass with slightly wetter mix to fill hollows and misses.
 - Use sponge float between passes to aid compaction and flatten surface.
 - Trowel up normally after sponge finish per client preference.
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B. Standard Lime Skim Finish (Premixed – 2 x 2 mm Passes)

Product: Supplied premixed in 22 kg buckets

Composition: Quicklime and silica sand

Timing: Apply once backing coats are firm but not fully dry to reduce shrinkage risk

Application:

1. Dampen surface before first pass.
2. Apply first 2 mm pass using steel float, ensuring full coverage and compaction.
3. Allow initial set (approx. 1–2 hours depending on ambient conditions).
4. Apply second 2 mm pass to refine finish and close surface.
5. Finish options: steel float for smooth finish or sponge for open texture.

Notes:

- Avoid overworking to prevent lime bloom.
 - Maintain moderate temperature and humidity during curing.
 - Ensure buckets are stored in dry conditions and resealed after use to prevent premature setting.
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7. Decoration Guidelines

System Overview:

- Backing coats (x2): Hemp fibre, expanded perlite, and quicklime binder
- Finish skim (2 x 2 mm passes): Applied consecutively on the same day

Site Conditions for Drying:

- Maintain consistent ventilation throughout the drying period.
- Avoid direct heat or forced drying (e.g. fan heaters).
- **Use gentle warmth if necessary and with caution, do NOT use dehumidifiers.**

Finishes:

- Use only breathable finishes such as limewash, clay paints, or mineral silicates.
- Avoid vapour-impermeable coatings (e.g. acrylics, vinyl emulsions) which trap moisture.
- Do not decorate until all layers are fully cured—premature decoration may result in:
 - Black staining from hemp fibres
 - Finish failure (blistering, peeling)
 - Reduced breathability and thermal performance

Final Checks Before Decoration:

- ✓ No visible damp patches or dark areas
- ✓ Surface is dry to touch across all layers
- ✓ Ambient humidity is below 65%

PLEASE NOTE – Drying times are approximate and can vary drastically depending on the substrates and conditions, in some instances it could be 4-6 months before decoration.
