



CORNERSTONE™

PROTECTING THE PAST & PRESENT



# About Cornerstone

Built off the back of a 25-year pedigree developing, supplying and working with lime mortars, Cornerstone dry ready-mixed lime mortars are available in a wide range to suit almost all applications, from historic to contemporary construction, with engineered solutions for specific applications. Cornerstone Mortars can be supplied from stock or custom made for your project.

## Why Cornerstone?

Dry mixed products have become common place within the construction industry, with current estimates suggesting that around 80% of mortars used in the UK are now factory produced. A high performance ready-mixed product takes all variables out of the equation, reduces inconsistencies and material handling on site and allows the contractor to focus on the build itself.

Unfortunately, most ready-mixed products have been designed for cost and not performance - using a small selection of dried stock sands with a limited range of binders, which results in a narrow range of products adapted for numerous uses.

At Cornerstone our approach has been different from the outset, we have for many years known that the secret of good mortar is the sand. The sands used in the Cornerstone range have been carefully selected to offer the highest performance with a variety of natural colours and textures that are sympathetic and appropriate to the varied buildings we find around the UK and worldwide.

Developed by an in-house team of qualified professionals using our purpose-built facility and working experience. Cornerstone have drawn from a stock range of over 40 natural sands and the highest quality binders available to give you exactly what you need in a bag.

Cornerstone Mortars are batch blended for consistency, naturally coloured with no pigment addition (unless requested or required). They are available in a range of textures, mix ratios and binder strengths to give the desired finish, colour and mortar properties. In short, at Cornerstone we make the best product for each application - tailored to suit your specific needs.

## Get In Touch

Visit our webstie for more information: [cornerstonemortars.co.uk](http://cornerstonemortars.co.uk)







## Production

All Cornerstone products are manufactured in house at our purpose built facility, and are CE compliant. Our facilities are also ISO9001:2015 accredited for design, manufacture and supply.

Our production facilities allow full end to end control of the process, from selection of materials used through to quality control and application of our own proprietary recipes.

Drying all our own sands allows us to select the best sand or blend of sands for each application and control of the blending process allows us to tailor recipes as required.

As a result, all products are available in a range of finishes, mix ratios and binder strengths to best suit your application. Bags are colour coded and batch coded for easy identification on site, and palletised for ease of transport, storage and handling.

## Sand Drying

Kiln dried sands are of course also used for many applications other than making mortars and we also toll-dry sands for a number of different customers and applications, from paving to film sets to filtration to pet care.



# Products and Applications

## The Cornerstone Range

Making up our Restoration and Conservation Range, Cornerstone Drymix and Promix are specifically designed for older properties and are fully heritage compliant.

For newer properties our Newbuild range offers an attractive, low-carbon alternative to conventional cement renders, with increased flex and low modulus of elasticity allowing for greater movement and wider aspect ratios.

For more specialist applications, our wide range of Performance products have been developed for everything from insulating renders to remedial renders to roofing to grouts.

Engineered solutions for specific situations can also be developed upon request.

## St. Astier Inside

Cornerstone products are made using the highest quality ingredients available, and off the back of our strong twenty-year partnership with St. Astier, we are proud to have earned the right in turn to include the "St. Astier Inside" tag on our Cornerstone products.

St. Astier have been in continuous production since 1851 and long renowned for quality, performance and unparalleled technical support. As Europe's most respected and technologically advanced producer of Natural Hydraulic Limes, they hold a well-earned reputation as the UK's market leader.

St. Astier are the only NHL brand to offer long-term performance data on their products, using rigorous research and QA testing to ensure consistency.



# Drymix

Multipurpose lime mortars and renders for Pointing, Render and Building applications.



Cornerstone Drymix takes all the variables out of the equation and allows the contractor to focus on the work itself. Made from St. Astier Natural Hydraulic Limes, selected sands and a few work aids to control the most fundamental aspects of your mortar's performance, it guarantees mix consistency and ensures what is supplied matches what was specified.

## Key Benefits:

- Gauged working additions - due to the minimal amounts required, these cannot be gauged into site mixes.
- Creates a breathable mortar, ideal for restoration projects.
- Available in a wide range of stock options to suit your project.
- Improved workability, extended working and finishing time
- Reduced shrinkage - less water is required than standard site mixes, which reduces the risk of shrinkage as the mortar cures.

## Products:

A range of binder strengths and mix ratios are available.

For most applications use an NHL3.5. For soft or friable backgrounds use an NHL2.

For base coat renders use a mix ratio of 2:5. For pointing, general building work and top coat renders use a mix ratio of 1:3.

When rendering, each successive coat should always be weaker than the coat below.

### Drymix Coarse

**Grading:** 5mm down, coarse washed sand.

**Suitable For:** Base coat renders, pointing and coarse bedding.

### Drymix Fine

**Grading:** 2mm down, fine washed sand.

**Suitable For:** Fine renders, finishing coats and fine bedding.



# Promix

Professional grade, multipurpose lime mortars and renders for Pointing and Render applications.



Cornerstone Promix is a factory blended mortar that again takes all variables out of the equation, made using St. Astier Natural Hydraulic Lime and high-performance kiln dried sand. Cornerstone Promix offers all of the advantages of the Drymix range but with additional work aids added to significantly improve the mortars physical and mechanical performance.

## Key Benefits:

- Significantly improved workability - Cornerstone Promix offers the feel of modern mortar whilst retaining the properties of pure NHL mixes, the working aids allow a much longer open time to apply and finish the mortar when compared to site mixes and the Drymix range.
- Significantly reduced shrinkage - less water is required than standard site mixes and the Drymix range, which mitigates the risk of shrinkage as the mortar cures.
- Improved all round cure - the mortar will cure evenly throughout the mortar, which promotes an improved bond with the substrate.
- Suitable for high suction backgrounds.

## Products:

Promix is typically supplied at a mix ratio of 2:5, and is available in both NHL2 and NHL3.5. For top coat renders and for pointing soft or friable backgrounds use an NHL2. For most other applications use an NHL3.5

Promix can be used as a basecoat render but it is more economical to use Drymix for the basecoat and Promix for the topcoat.

When rendering, each successive coat should always be weaker than the coat below.

### Promix Coarse

**Grading:** 5mm down, coarse washed sand.

**Suitable For:** Coarse renders and pointing.

### Promix Fine

**Grading:** 2mm down, fine washed sand.

**Suitable For:** Fine renders and pointing.



# Newbuild

Attractive, flexible, low carbon lime based mortars and render for modern construction.

Cornerstone Newbuild offers all of the benefits of lime, vapour permeability, improved workability and flexibility, whilst retaining the higher strength associated with modern mortars and renders.

The Cornerstone Newbuild range is an environmentally friendly alternative compared to conventional mortars used in modern construction. With 50% less embodied carbon than a sand and cement mortar and the ability to absorb 30kg of CO<sup>2</sup> for every tonne used, equivalent to the amount of CO<sup>2</sup> absorbed by a young tree over 3 years.

The Cornerstone Newbuild range can be directly applied to concrete, cement, brick and block. Designed as a mortar and render, the Newbuild range can be used for all manner of construction applications.

## Key Benefits:

- Vapour open, promoting moisture movement from the building fabric.
- Highly flexible with low modulus of elasticity.
- Highly workable, with all of the benefits of lime.
- Accommodates considerably more movement than cement renders.
- Accommodates heat and regulates humidity.
- Reduces risk of shrinkage and cracking.
- Colours are derived from the sand, so no pigment additions.
- Suitable for high suction backgrounds.

## Newbuild Coarse

**Grading:** 5mm down, coarse washed sand

**Suitable For:** Base coat renders, pointing and coarse bedding.

## Newbuild Fine

**Grading:** 2mm down, fine washed sand

**Suitable For:** Fine renders, finishing coats and fine bedding.





# Performance Range



Under the Cornerstone Performance range we have the ability to customise and create a mortar for every requirement throughout the construction process or to design a specific mortar to help mitigate specific problems.

Depending on the product, Cornerstone Performance mortars are created using various blends of St. Astier NHL's, Prompt Natural Cement, high performance sands and aggregates and carefully selected working aids.

## Cornerstone Heritage Grouts

Available in a range of strengths for consolidation and void filling of solid masonry, Cornerstone Conservation Grout is supplied as a single component dry-bagged product, mixed with water on site to create a high stability, fluid grout that can be both pumped and gravity poured.

## Cornerstone Marine Mix

Designed for use in exposed locations in close proximity with water, especially tidal zones. Cornerstone Marine Mix will set underwater and offers an accelerated setting time whilst maintaining all of the virtues of a pure NHL mortar.

## Cornerstone Harbour Mix

Similar to the Marine Mix but completely waterproof and resistant to sulphates making it suitable for applications where the mortar will be submerged in water. Cornerstone Harbour Mix will set underwater and provides a fast setting, extremely durable mortar for the most aggressive marine environments.

## Cornerstone Scantle Mix

A fibred mortar designed for bedding natural slate and other roofing materials, Cornerstone Scantle Mix provides an early set for security and protection whilst maintaining the high flexibility and low strength necessary when working with natural slates and similar roofing materials.



# Performance Range



## Cornerstone Insulating Render

One of very few viable solutions available for insulating older buildings, Cornerstone Insulating Render has the high vapour permeability and low strength of a pure NHL2 render while meeting part L1B legislative requirements for improving the thermal performance of existing buildings. Made with specialist ultra-lightweight hardened aggregate, a two-coat 50mm render will reduce heat loss through solid walled masonry by up to 60%.

## Cornerstone Remedial Renders

Applied over existing renders, painted surfaces and mixed backgrounds, Cornerstone Remedial Render will consolidate weathered or damaged surfaces and provides the perfect system for renovation and repair. Cornerstone Remedial Render can also be used to address surface defects and can act as a bridging coat between various substrates, alterations and extensions.

## Cornerstone Tanking Render

Designed for internal applications where the presence of liquid water is constant, such as underground basements or areas below the external floor level. Cornerstone Tanking Render acts as both render and tanking treatment and can be applied directly onto the host masonry as two 10mm coats. Tanking Render can also be used to inhibit salt movement in masonry as it is completely resistant to sulphates.

## Cornerstone Woodlath Render

Designed as a base coat to key into wooden laths, Cornerstone Woodlath Render is a fibred mortar promoting an early set to reduce slump, particularly helpful for ceiling work, whilst maintaining the high flexibility and low strength required for lath and plaster work. Its accelerated set also allows for quicker application and recoating.



# Custom Mortars

Mortar matching is a process which enables clients to have a mortar that is as close as possible to the original mortar, or create a new colour or finish. Within our mortar library we have an extensive range of mortars that we have already created to suit specific regions within the UK. For any samples that do not match within our existing library we will create a new mortar.

The existing mortar is analysed in our laboratory and from this we blend a mortar that can provide a sufficient match. Once we have a colour the mortar is then mixed with the chosen binder strength and selected additives to aid performance. Supplied as a dry, premixed mortar for consistency throughout the entire mix and application.

Custom Blending is the creation of a new mortar or alteration to an existing mortar to suit specific properties or requirements. As our entire production process is on site we have the ability to interchange, adapt and create new products with relative ease.

The majority of our custom products are designed to address specific applications or to overcome potentially difficult situations where conventional lime mortars could be unsuitable. A large majority of our custom blends have been so successful they become stock items under our performance range, such as the Remedial Render System and Harbour Mix



## The Sergeants Mess

The conversion of a Grade II listed building, with an existing damaged render that was too difficult to safely remove. Cornerstone produced a remedial render system to consolidate and bridge the existing render and allow for a new finish to be applied, whilst achieving a low strength and highly vapour permeable finish.



## Rosilian Hall

The property, built in 1908, had historic water ingress issues. Cornerstone created a render system with a self-draining carrier board acting as a rain screen, followed by two coats of Cornerstone Newbuild Render and Beeck Mineral Paint. This system has allowed the wall to dry, whilst maintaining vapour permeability and durability.



## Stonewest Abu Dhabi

For the restoration of Qasr Al Hosn, the oldest fortification in Abu Dhabi, Cornerstone have supplied over 120 tonne of Low Strength Heritage Grout for consolidation of voids within the walls of this iconic site, and 20 tonne of a custom lime, charcoal and gypsum render matched to the original internal finish.



## J.H. Lidstone Ltd

Since introducing the Cornerstone range of Drymix and Promix ready-mixed mortars and renders, J.H. Lidstone, who are a long standing and well-known Southwest plastering contractor, have used them extensively on their Heritage projects, finding the improved consistency, performance, labour savings and reduced material losses a significant improvement to that of site mixing.



## Adaptavate Breathaplasta

A highly breathable internal plaster that helps regulate moisture and improve insulation to reduce risk of condensation and mould. Available from merchants across the UK and Ireland, Breathaplasta is a natural product that is fast and easy to install and sets in under an hour. Cornerstone is the contracted producer of the plaster for and on behalf of Adaptavate and has helped extensively with the product development, product testing, type testing, and ongoing development.



# Support

Cornerstone has been developed to provide solutions.

Our background is trade, as a company with over 25 years of experience supplying lime based materials we were originally created as a means to supply our previous contracting company. We were founded out of necessity due to the lack of available materials at the time, whilst we have evolved and are no longer involved in contracting, it still remains as one of our core values. The Cornerstone range of materials have been developed in conjunction with tradespeople to provide mortars that offer improved workability and make application easier, whilst mitigating the potential risks that lime mortars can pose. The Cornerstone range offers materials that are suitable for anyone, from apprentices through to experienced contractors. Our knowledge of these materials comes from intimate experience and enables us to continuously update and improve the range.

The generic one size fits all approach simply does not work due to the varying nature of the industry, one application may be for a city centre townhouse and the next for a historic masonry sea wall.

Throughout the years we have developed strong relationships with specifiers, who are safe in the knowledge that Cornerstone Mortars are designed for their intended use. Whilst we do not discredit the use of site mixed lime mortars, Cornerstone offers the peace of mind that the specification is conformed to, as well as providing specific and custom mortars that simply cannot be achieved through on-site mixing.

With a wealth of industry experience and qualified in-house professionals, Cornerstone Mortars offer full end to end support from design and specification through to application and aftercare.





# Development



Development is everything.

We have taken over 25 years' worth of knowledge and experience and put it in a bag, but we do not intend to stop there.

Our onsite lab and testing facilities functions as a development centre for all of our existing products and the creation of new materials.

Everything produced under the Cornerstone brand is CE marked, ISO9001:2015 accredited for design, manufacture and supply, as well as tested to European standards and our own stringent in-house test standards. All Cornerstone mortars are firstly lab tested and then site trialled before they are brought to market. This ensures that any material that carries the Cornerstone name is of the highest quality.