



Producer members

Producers offer mainland UK coverage unless otherwise stated

Anglian Lime Company 01787 313974 www.anglianlime.com

Breedon Southern Ltd 01332 694000 www.breedonaggregates.com

CEMEX UK Materials Ltd 01932 568833

Cemfree Masonry Mortar 01954 780687

Cornish Lime Company 01208 79779

CPI Mortars Ltd 0845 850 9090

Hugh King & Co 01294 557515

John Carr (Liverpool) Ltd 0151 2070067

Marshalls Mortars & Screeds 0345 3013030

www.marshalls.co.uk

Mortar and Screed Company Ltd 01952 224202

www.mortarandscreed.co.uk

Remix Dry Mortar 01329 231200

RTU 02890 851441

www.rtu.co.uk (Belfast)

Tarmac 03701 116 116

Watts Mix 01262 675383

www.wattsmix.com

MPA Appointment

Mineral Products Association has appointed Jon Prichard as chief executive from 1 October 2022. He succeeds Nigel Jackson who has retired.

Mr Prichard, a chartered civil engineer, was previously chief executive at the Institution of Chemical Engineers and at the Engineering Council, Consulting Engineers Rendel and the Institution of Civil Engineers after completing 19 years in the British Army - Royal Engineers.

Towards sustainability in the mortar industry

MPA Mortar producers continue to work towards the best standards of environmental and business performance, reports the trade association's executive chairman, Stuart Russell.

Not only are our efforts essential for sustainability but, without doubt, our work also ensures the best quality and cost controls on the products we offer, he says.

Looking at the wide range of elements being assessed, Mr Russell stresses the underlining need for an ethical and responsible approach to business, limiting where possible the industry's impact on natural resources, minimising use of energy, cutting down waste and recycling materials wherever possible.

Raw materials are carefully sourced and decisions made about where alternatives can be introduced. For example, by adding a limestone filler to a cement mix in mortar, an overall embodied carbon reduction of 10-14% has been achieved by one producer.

He cites industry examples of mortar suppliers moving towards renewable electricity producers and the installation of solar arrays at some operations to limit external demand.

Water use can be reduced by such measures as installing a collecting drier, used for preparing raw materials, which returns water to settling ponds.

Vehicle deliveries do generate high emissions and it is at present difficult to identify a more sustainable alternative but the mortar industry is working with manufacturers to explore new technology developments. Indeed, an MPA member has recently ordered what will be the first battery electric mixer truck in the UK, which will give zero tailpipe emissions and reduced operating noise and vibration.

A final word from Stuart Russell:

At the end of the day, as an industry we have a responsibility to act in the best interests of our planet, our customers, our employees and those that come into day-to-day contact with us. We supply an essential building material and it is up to us to do so in a sustainable way.

Special render key to prison refurbishment



Use of Cornish Lime's specialist Cornerstone Insulating Render was key to the successful redevelopment of Bodmin Prison, Cornwall, into a luxury hotel.

Located on the edge of Bodmin Moor, the original prison was built in 1770 and decommissioned in 1927 when it was sold at auction for demolition. The jail survived attempts to blow it up with its nearly metre-thick walls proving too challenging to deconstruct. Despite various incarnations since its closure, it wasn't until 2004 that restoration works began to restore and reinvent a few areas of the jail into an historical exhibition. Then, in 2015 a £40 million investment was made to turn the jail into a four-star hotel and restaurant within its Grade II listed façade.

The project presented many challenges. Due to demolition attempts, large areas of the jail had been without a roof for nearly a century, resulting in large sections falling to ruin and heavily saturated with water.

Keeping the history of the building and as many original features as possible was key to the project. From a technical perspective, protecting the historic fabric while significantly improving the walls' thermal performance was imperative. To convert successfully the heavily saturated jail cells into luxury hotel rooms, the team focused on how

to manage moisture efficiently.

Modern insulation systems had the severe risk of restricting moisture movement, which would risk damage to the historic fabric and cause mould and other moisture-related issues. In addition, organic systems, such as wood fibre and cork, would be unlikely to cope with the extremely high moisture content of the walls without the fear of interstitial condensation and rot.

Working closely with the project team, Cornerstone's Insulating Render was chosen for the jail's internal rendering. Manufactured with St Astier Lime, recycled aggregates and additives, Insulating Render would be highly breathable and flexible whilst still providing the durability required. Additionally, as a mineral-based render, the lack of organic content meant that the render would not



break down under extremely high moisture loads.

The next challenge was approaching the 900 tonnes of render to be applied. With pressing timelines, Insulating Render would allow the team to work quickly and apply thicker coats, significantly reducing the application time required. Designed with lightweight features, Insulating Render could be applied directly onto the stonework and built out in depths of up to 50mm per pass and over 70mm as a total depth, with just a week between coats. The walls were either left bare or finished with Cornish Lime's CLM66 lime putty plaster for the final finish.

To ensure the jail's characterful stonework received the attention and durability it deserved, a mortar sample was tested to

determine the binder and aggregate type. Once the analysis was complete, a mortar was designed and developed to match the original colour found within the masonry and used extensively for internal and external re-pointing



Due to Insulating Render's porosity, the render began to pull water out of the background substrate, assisting the heavily saturated walls in drying. This breathability will continue to buffer relative humidity and manage the risk of condensation and mould while improving air quality. Further, the hotel will be able to provide the thermal comfort expected of a luxury four-star hotel. With its superior insulating properties, a 70mm coat achieved a U Value of 0.7, which was needed for the hotel's complex heating, ventilation and cooling systems.



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MPA Mortar is part of the Mineral Products Association, the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and silica sand industries.