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Article By: UK Cast Stone Association  
 Title: An Appealing Alternative To Quarried Natural Stone  
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Since Georgian times, cast stone has been a familiar and much-used alternative to expensive quarried stone profiles and finishes. Readily available, long-lasting and durable, its classical details are used to enhance entrances, openings and gables, adding distinction and character out of all proportion to the cost.

Cast stone evokes a sense of timelessness which fits in with any form of massive construction and can be formed into almost any shape or size the designer wishes. Ideal for period or contemporary styles, it is regularly used for newbuild, extension, refurbishment and conservation work, including areas of sensitive planning constraints or where natural stone is a predominant material. It complements a range of finishes, from stone and reconstituted stone to brickwork and render.

Cast stone can equal or surpass the technical capabilities and aesthetic qualities of quarried natural stone in terms of strength, moisture penetration, colouring and textural consistency. Stratification is never a problem and it's free from imperfections. Often its colour is the result of choosing an aggregate with the appropriate inherent colour, making it possible to simulate the look of Portland and Bath stone for instance. Government sponsored research has shown that cast stone weathers like natural stone and it looks much the same.

So what is cast stone? It's a special form of simulated stone, synonymous with reconstructed stone. Its origins date back to ancient Rome and the first architecturally significant use of simulated stone in Britain was

Coadstone, used for classical detailing by Robert Adam and John Nash. According to the UK Cast Stone Association (UKCSA), cast stone is 'any material made with natural aggregates and a cementitious binder that is intended to resemble and be used in a similar way to natural stone.'



Despite its composition, it would be a mistake to think that cast stone has much to do with everyday concrete. It's the difference between rough carpentry and the precise hand-crafted joinery of a Thomas Chippendale. All types of architectural stonework can be produced – large, small and structurally reinforced – and cast stone's ability to make complex shapes makes it perfect for ornate detailing.

Since at least the eighteenth century, this versatile material has been used for mouldings, columns and their entablatures, cornices, statuary, steps, balustrading and keystones. In housing, cast stone details such as string courses, window heads and cills, porticos and quoins are a tried and tested solution.

Cast stone can also take the form of ashlar masonry. These days, quarried natural stone is prohibitively expensive for solid masonry but it is simple and economical to use cast stone ashlar blockwork – which not only satisfies

the 'truth to construction' architectural argument but will perform in terms of bearing strength and weather in the same way as natural stone.

As with any building material, it's important you can trust the manufacturer. Issues over consistency in cast stone manufacturing prompted UKCSA to produce a generic specification for the material, downloadable from its website. The UKCSA Specification has become the industry benchmark.



A key difference between UKCSA members and other cast stone manufacturers is in the compressive strength of their products, which affects both durability and weathering characteristics. The minimum standard required by UKCSA is at least 40% stronger than the requirements of the British Standard for cast stone. What's more, it is backed by a rigorous regime of product testing and third party verification, the results of which must be logged with UKCSA.

"It's critical that people can trust what they're buying," says UKCSA chair Andy Cotton. "There are around 120 cast stone manufacturers in Britain. Most operate without adequate quality assurance or product testing and may not be working to proper standards. Using their products risks poor

performance, costly remedial action or claims. In sharp contrast, the UKCSA Specification ensures you are getting the best cast stone and service."

The NHBC says the starting point in specifying cast stone is to ensure it complies with the latest version of BS1217 or, better still, the higher standard adopted by UKCSA members. The message is clear. Whatever the product make sure it complies to the appropriate standard – and the higher the standard the better. UKCSA is an ethically, socially and environmentally responsible trade association representing the leading manufacturers: Bradstone, Broadmead Renaissance Cast Stone, PD Edenhall, Forticrete, Haddonstone, Plean Precast, Procter Cast Stone and Woodside Cast Stone. This year UKCSA celebrates 20 years as the guardian of quality for cast stone.

The construction industry's first point of reference for cast stone 'The UKCSA Technical Manual for Cast Stone' has just been fully revised and extended. This ground-breaking reference work provides everything construction professionals need to know about the manufacture, design, specification and use of this attractive and sustainable material. It can be viewed or downloaded from [www.ukcsa.co.uk](http://www.ukcsa.co.uk)