

Colours

Forticrete Cast Stone is available in a choice of six standard colours that are intended to replicate the natural stones available throughout the UK. In common with natural stone, Forticrete Dressings are through coloured.

Bespoke colours

Forticrete has a library of over 100 bespoke Cast Stone colours that can be reproduced with accuracy at any time. Products in these colours can be provided but will incur a supplementary cost.

Naturally high grade

Forticrete's factories use controlled processing that ensures an accurate mix of the raw materials is produced.

Quality without compromise

All Forticrete Cast Stone products are manufactured under a BS EN ISO 9001 quality management system. Products that meet the specific requirements of the harmonised standards BS EN 771-5 - Manufactured stone masonry units, and BS EN 845-2 - Lintels, will be CE marked accordingly. Declarations of Performance are available at www.forticrete-ce.com.

All other products are manufactured and kitemarked to BS 1217 – Cast Stone and in accordance with BS 5642-1 - Specification for window sills of precast concrete, cast stone, clayware, slate and natural stone; and BS 5642-2 - Specification for copings of precast concrete, cast stone, clayware, slate and natural stone.

We introduced an 'ECO' branding scheme for product development some 10 years ago to enable our customers to instantly recognise that our products have high environmental credentials. As a consequence of our manufacturing facilities conforming to the quality standard BS EN ISO 9001, environmental management standard BS EN ISO 14001 and the responsible sourcing standard BES 6001, all of our products carry an 'ECO' mark.

Weathering resistance

All Forticrete Cast Stone products are manufactured with water repellent admixtures which reduce both water absorption and penetration.

These admixtures are incorporated in the constituent mix and are therefore an inherent feature of the products even after cutting.

An additional benefit during construction is a reduced initial suction of moisture from the joints, allowing improved curing of the mortar without any loss of adhesion.

Engraving service

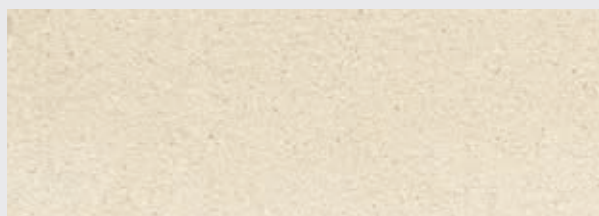
Communication is a key requirement in today's world. Forticrete can offer you engraved cast stone units, which could be simple name stones or logos, or a combination of both. This instantly differentiates your building, making it immediately recognisable and unique.

General notes

All dimensions shown in this brochure are in millimetres. Stone to stone joints can be either 5mm or 10mm depending upon the size of unit as well as location and method of fixing. See Dimensional tolerances below.

No provision will be made for fixings unless they have been specified or are stated in this brochure.

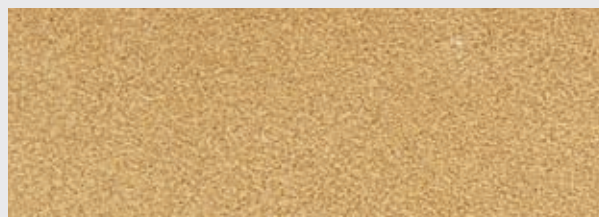
Any product sold will be sold subject to Forticrete's current terms and conditions of sale, which are available from our Customer Service Office.



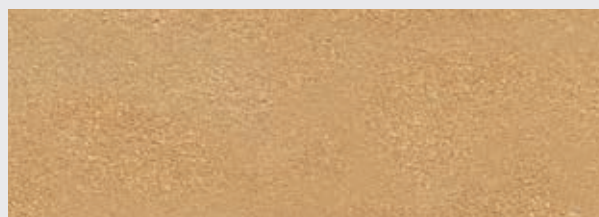
Portland



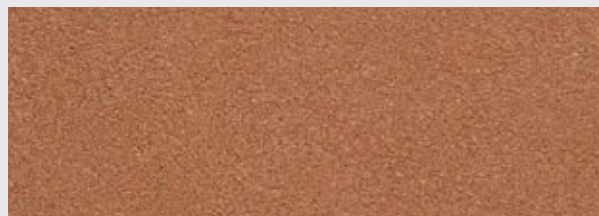
Bath



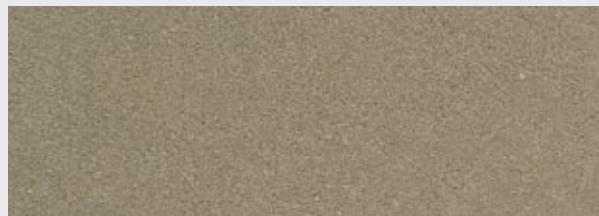
Buff



Holyrood



Glamis Red



Sherwood

The reproduction of colour is as close as is possible within the photographic and printed processes. Where precise colour tolerances are vital, you are advised to view actual product samples.

Stone in Stock

A number of standard items are available from stock in the Bath colour. Stone-in stock supplied in Scotland is available in Buff colour. See our brochures entitled 'Stone in Stock' and 'Stone in Stock Scottish Range'.



Multiple Cast Stone elements at a Private House in Doncaster.

General specifications

Forticrete Cast Stone Dressings are manufactured from high grade limestone and sandstone aggregates that have been chosen for their known performance and reliable quality. The cement, pigments and waterproofing admixtures all conform to their appropriate British or European Standard.

Forticrete Cast Stone Dressings are created from a homogeneous mix, without using a 'backing' material. This ensures that no undue stresses are built up within the unit.

The major technical performance characteristics of Forticrete Cast Stone Dressings comply with the requirements of BS EN 771-5, BS 1217 and BS EN 845-2 where applicable.

Units manufactured to BS EN 771-5 (ie units with all dimensions 650mm or less and not containing reinforcement or fixings)

Compressive Strength: units to BS EN 771-5:2011 are Category I with a mean normalised compressive strength of 25N/mm² (perpendicular to the bed face).

Gross Dry Density: 2000Kg/m³ Tested to BS EN 772-13

Thermal Conductivity: 1.00W/mK ($\lambda_{10,dry,unit}$, SI) based on table value from BS EN 1745 p=50%

Water Absorption: <2g/m².s Tested to BS EN 772-11

Dimensional Stability: <0.4mm/m. Tested to BS EN 772-14

Units manufactured to BS 1217 (ie units with dimensions greater than 650mm or containing reinforcement or fixings)

Compressive Strength: the minimum mean cube compressive strength 35Mpa (N/mm²)

Weathering class: CAT to BS 1217: <1.00mg/mm²

Factors such as design, detailing, exposure, climate and local environment all contribute to the way in which Cast Stone will weather. Forticrete Cast Stone will weather in much the same way as natural stone in similar circumstances.

Freeze / Thaw Resistance:

As Table 15 of PD6697:2010

Mortar

Mortar used for the installation of Cast Stone Dressings should not be stronger than Designation III (1:1:5/6) for standard elevations. Refer to Forticrete for other applications.

Handling reinforcement

Any units over 650mm in length contain one or more steel bars (except Caplock Coping). Other units may contain handling reinforcement.

Fixings for support, restraint and handling

Inserts and anchor slots can easily be incorporated into cast stone for restraint and for lifting at the request of the specifier/designer. Some Forticrete Cast Stone Dressings will incorporate 100mm stainless steel dovetail slots to restrain lateral movement in vertical units eg. window jambs, door jambs etc. Other fixings may be incorporated to assist with construction on site. Please discuss your requirements with us.

Pairs of lifting sockets should be used in conjunction with a spreader beam to eliminate any bending action of the unit. If a unit can only use one lifting socket then the contractor will need to take measures to prevent the unit from rotating whilst lifting. Forticrete may use lifting sockets to transport units at the source of manufacture. The use of such sockets on site should be checked with our Technical Department.

Structural properties

All cast stone units are decorative and are not designed to be load bearing, except our range of Structural Heads which comply with BS EN 845-2. The structural stability of all units in their finished state should be approved by the structural engineer carrying out the overall design for the project. Wind loading on large window features, sections of stonework, supporting lintels and fixings to cast stone units should also be considered early in the design process.

Due care and attention should also be given to the differential shrinkage and expansion rates between clay and cast stone units when employed in combination.

Site operatives must be made aware of the need to support and protect all cast stone units in their temporary state to negate the risk of any load being implied upon them whilst construction is taking place eg. window heads.

Forticrete are able to offer guidance on all areas of design and can be contacted via the telephone number on the back of this brochure.

Control joints

Consideration must be given to the creation of suitable movement control joints, full guidance for which is given in Forticrete's Masonry Design Guide. Generally, control joints for Cast Stone should be spaced at a maximum of 6m centres.

Dimensional tolerances cast stone

Units made to BS EN 771-5

Tolerance Category: D1 (± 2 mm for length & height).

Units made to BS 1217

Unit Length	Tolerance
0-600mm	± 2 mm
601-1000mm	± 3 mm
1001-2500mm	± 4 mm
2501-4000mm	± 5 mm
>4000mm	± 6 mm

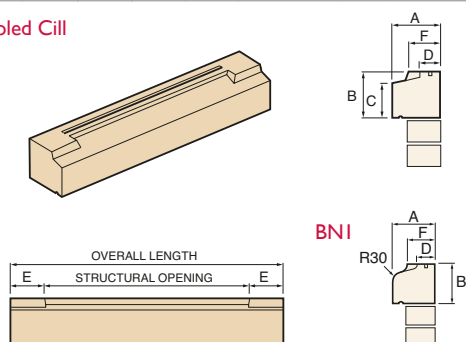


Stooled cills are built in at the time of construction.

They should be bedded under the stooling only at the time of installation with an inert packer in the centre. The cill should be solidly pointed as the scaffold is taken down upon completion of the construction.

Code	A	B	C	D	E*	F	Max Length	Kg Per Lin/M
T1-40	150	140	105	40	102.5/140	100	1547	39
BN1	150	140		65	102.5/140	100	1547	39
T2	150	65	40	65	102.5/140	100	1000	17
T3	200	140	105	65	102.5/140	150	1547	53
T4-40†	175	140	105	40	102.5/140	125	1547	46

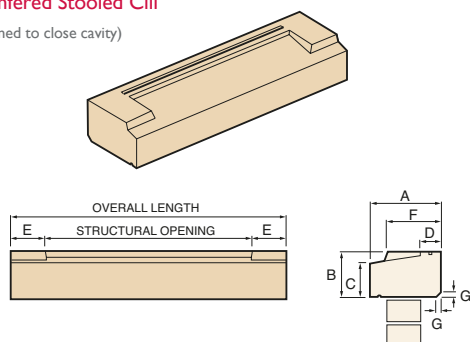
Stooled Cill



Code	A	B	C	D	E*	F	G	Max Length	Kg Per Lin/M
ST6	215	140	105	65	102.5/140	165	18	1547	56
ST7	215	65	40	65	102.5/140	165	18	1000	24
ST8	245	140	105	65	102.5/140	195	18	1547	63

Chamfered Stooled Cill

(Designed to close cavity)



* Specify on ordering
† Designed for use with render

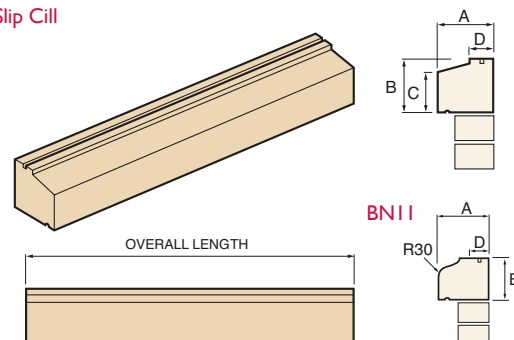
Cills

Cills are manufactured in accordance with BS 5642.

Cills of greater length than those shown in the tables are available and are made in more than one piece.

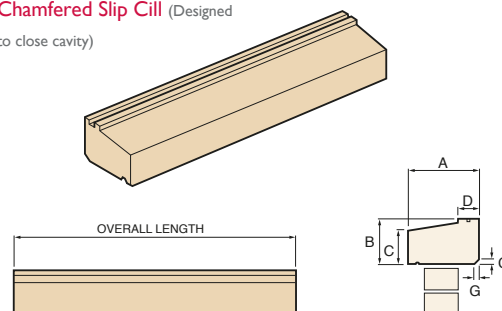
Code	A	B	C	D	Max Length	Kg Per Lin/M
T11-40	150	140	105	40	1547	39
BN11	150	140	-	65	1547	39
T12	150	65	40	65	1000	17

Slip Cill



Code	A	B	C	D	E	Max Length	Kg Per Lin/M
SC10	215	140	105	65	18	1547	55
SC11	215	65	40	65	18	1000	22
SC12†	245	140	105	65	18	1547	62

Chamfered Slip Cill (Designed to close cavity)



Code	A	Kg	Slip Cills forming 90° at Bay
T11-40-90E	265	15	
BN11-90E	265	15	

90° Slip Cill

Available to suit any standard or special section, please specify cill type and external dimensions of brickwork. Purpose-made products are available on request.

Code	A	Kg	Slip Cills forming 45° at Bay
T11-40-135E	236	16	
BN11-135E	236	16	

135° Slip Cill

Available to suit any standard or special section, please specify cill type and external dimensions of brickwork. Purpose-made products are available on request.