

# Building and Construction

## Steps and Paving

Whether it's a grand staircase inside a home, or steps for a beautiful entranceway or patio area, our elegant and practical steps will help you to build your vision.

Our traditional, integrated and radial cast stone steps are available in four styles. They can be laid horizontally, vertically or on edge to form stairs, low walls, kerbs or sills.

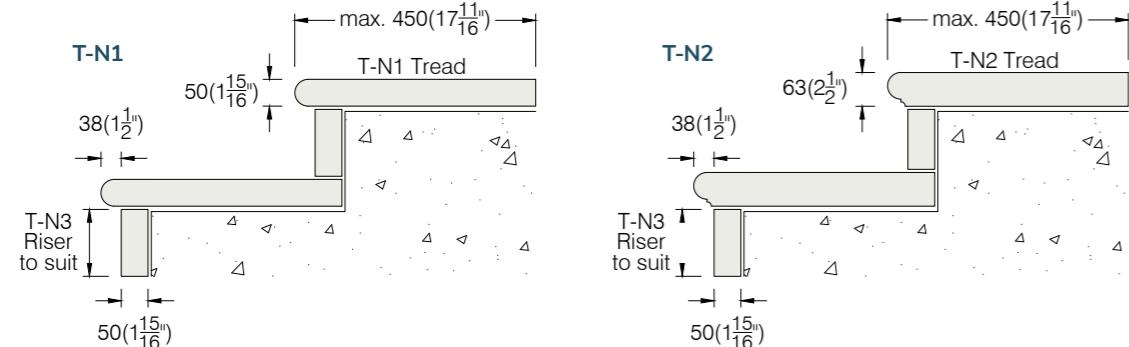
Bull-nose, moulded and plain designs are available, with both straight or rounded edges.

Curved steps and infill components are also available.

Anti-slip and visibility strips can be integrated.

Standard component length of 1000mm.

### Steps



### Spiral Staircase

An elegant alternative to metal and wooden options.

For interior use only.

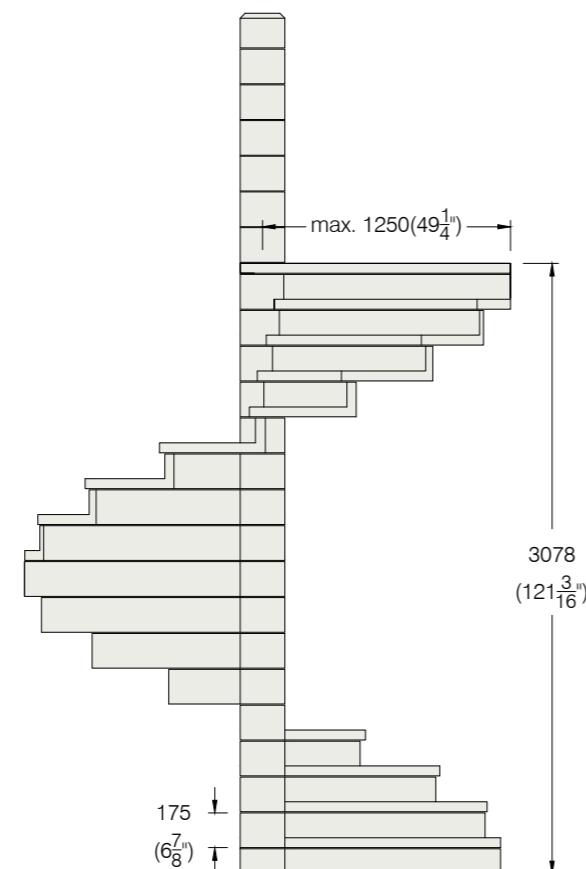
The riser and locating ring play an integral part of each step, making installation easy and straightforward.

Our bespoke landings and top steps allow seamless integration with the surrounding environment.

Radius flexible to your requirements.

Left-hand and right-hand ascending staircase options available.

**Tech Sheet:** S10, S11, S12



Bespoke designs available on request.

### Paving

#### Smooth Paving

Paving with a smooth texture.

**T-N700A:** 600 x 600 x 50mm (23 5/8" x 23 5/8" x 1 15/16")

**T-N701A:** 600 x 300 x 50mm (23 5/8" x 11 13/16" x 1 15/16")

**T-N702A:** 300 x 300 x 50mm (11 13/16" x 11 13/16" x 1 15/16")

**T-N705A:** 450 x 450 x 50mm (17 3/4" x 17 3/4" x 1 15/16")

**T-N706A:** 450 x 225 x 50mm (17 3/4" x 8 7/8" x 1 15/16")

#### Textured Paving

A range of paving with a subtle texture.

**T-N800A:** 600 x 600 x 50mm (23 5/8" x 23 5/8" x 1 15/16")

**T-N801A:** 600 x 300 x 50mm (23 5/8" x 11 13/16" x 1 15/16")

**T-N802A:** 300 x 300 x 50mm (11 13/16" x 11 13/16" x 1 15/16")

**T-N805A:** 450 x 450 x 50mm (17 3/4" x 17 3/4" x 1 15/16")

#### Riven Paving

A natural-look textured range of paving.

**T-N855:** 450 x 450 x 50mm (17 3/4" x 17 3/4" x 1 15/16")

#### Orangery Flooring

A traditional Victorian-style flooring system.

Suitable for indoor use.

**T-N750A / T-N775A:** 394 x 394 x 50mm (15 1/2" x 15 1/2" x 1 15/16")

**T-N750B / T-N775A:** 102 x 102 x 50mm (4 x 4 x 1 15/16")

**All Paving - Tech Sheet:** PV10

#### Blanc de Bierges Paving

Modular striated paving with extremely low skid and slip potential (Pendulum Test Value of 76). A variety of kerb profiles and styles also available.

**VN50R140-140:** 140mm x 140mm x 50mm (5 1/2" x 5 1/2" x 1 15/16")

**VN50R290-290:** 290mm x 290mm x 50mm (3 1/2" x 3 1/2" x 1 15/16")

**VN50R390-390:** 390mm x 390mm x 50mm (15 3/8" x 15 3/8" x 1 15/16")

**VN50R390-390:** 440mm x 440mm x 50mm (17 3/8" x 17 3/8" x 1 15/16")

**VN50R590-290:** 290mm x 590mm x 50mm (3 1/2" x 23 1/4" x 1 15/16")

**VN50R590-590:** 390mm x 590mm x 50mm (15 3/8" x 23 1/4" x 1 15/16")

**VN50R590-590:** 590mm x 590mm x 50mm (23 3/4" x 23 1/4" x 1 15/16")



Blanc de Bierges Paving



Smooth Paving



Textured Paving



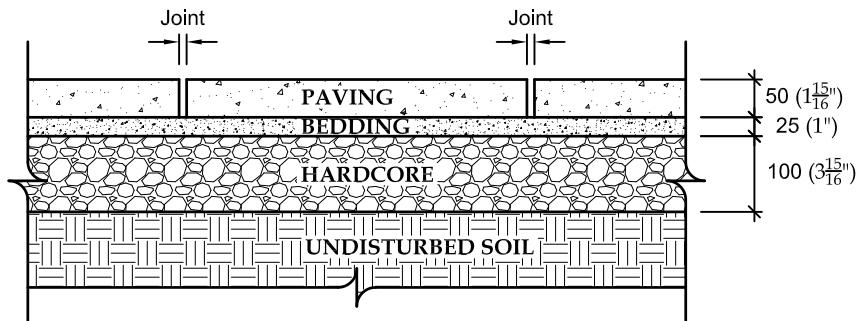
Riven Paving



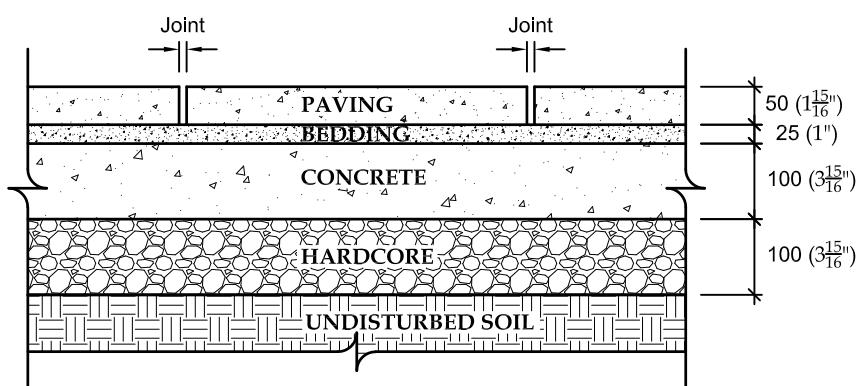
Orangery Flooring



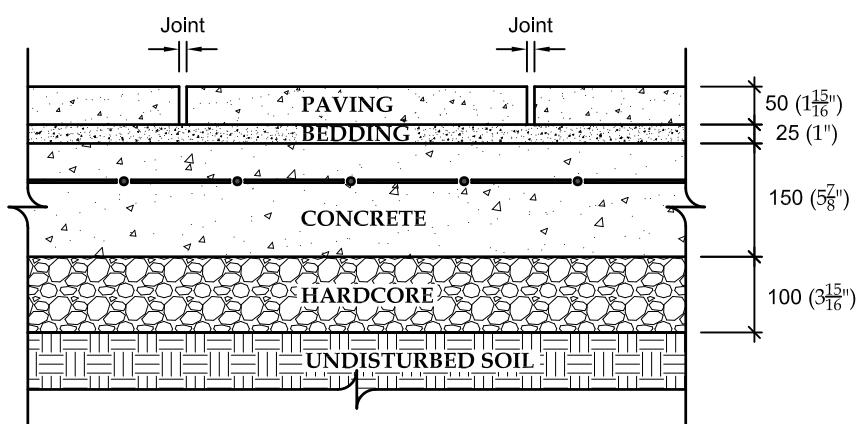
## PAVING INSTALLATION RECOMMENDATIONS

RECOMMENDED INSTALLATION FOR FOOT TRAFFIC  
(Min. Fall 1:60)

Paving.  
1:8 cement/sharp sand bedding mix 25 - 40mm thick.  
100mm (minimum) well compacted  
MOT type 1 grade hardcore. With a  
thin blinding coat of sharp sand.

RECOMMENDED INSTALLATION FOR LIGHT VEHICULAR TRAFFIC  
(Min. Fall 1:60)

Paving.  
1:8 cement/sharp sand bedding mix 25 - 40mm thick.  
100mm (minimum) 1:2:4 mix concrete  
100mm (minimum) well compacted  
MOT type 1 grade hardcore. With a  
thin blinding coat of sharp sand.

RECOMMENDED INSTALLATION FOR HEAVY VEHICULAR TRAFFIC  
(Min. Fall 1:60)

Paving.  
1:8 cement/sharp sand bedding mix 25 - 40mm thick.  
150mm (minimum) 1:2:4 mix concrete  
with mesh reinforcement.  
100mm (minimum) well compacted  
MOT type 1 grade hardcore. With a  
thin blinding coat of sharp sand.

Haddonstone paving is not a pressed product, each paving slab is individually poured into a dedicated mould, resulting in minor variations of thickness. Given these minor variations, Haddonstone paving is not suitable for paving support systems, or being laid onto a screeded bed. It is recommended that each paving slab is bedded individually with a 6mm ( $\frac{1}{4}$ ") minimum joint between each slab to accommodate manufacturing tolerances, and never installed with butt joints.

To improve adhesion and prevent reflective staining, it is recommended that the back of the paving slab is coated with a primer/bond coat prior to bedding.

Reflective staining is a result of migration of moisture and mineral through porous paving from the bedding mix, which results in permanent staining of the finished face.

Proprietary primers/bond coats are available.

Recommended minimum fall 1:60 for paving



Required: pointing mix, pointing trowel, masking tape (if required), mixing bowl, water, sponge.

Please note: all text and photographs relate to TecStone pointing mix.



Before pointing ensure each 6mm ( $\frac{1}{4}$ ") joint is free from loose particles. Avoid pointing in extreme conditions, particularly wet and cold.



The TecStone pointing mix is supplied as separately bagged cement and aggregate with an information leaflet.



The cement and aggregate should first be mixed together dry in the ratio of 1 part cement to 4.5-6.5 parts aggregate.

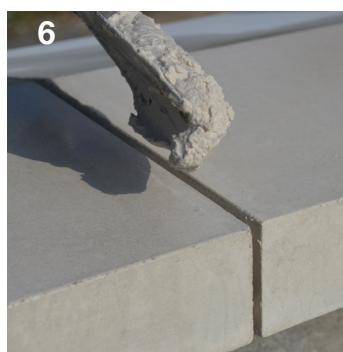


Carefully add small quantities of water to the TecStone pointing mix, mixing thoroughly to ensure the water is fully dispersed.

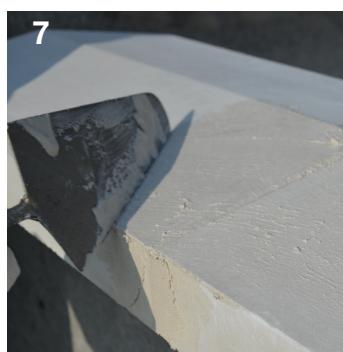
\*See note below.



The TecStone pointing mix is ready to use when it has the consistency of putty. \*See note below.



Scoop the mix into the joint, pressing with a trowel to ensure an even fill.



Smooth the pointing mix to the profile of the stone, removing any excess pointing mix.



Wipe over the surface of the joint and surrounding area with a dampened sponge to remove all surplus pointing material off the surrounding areas and ensure a flush finish to the joint.



If necessary trowel over the joint once more to ensure a flush finish.



Any mix residue may be rubbed away with fine abrasive paper 2-3 days after completion.



The finished joint.

\* NOTE: It would be advantageous to use a waterproofing additive in the mixing water (SBR or other proprietary mortar admixture). The use of too much water can lead to the pointing mix colour and texture becoming unsightly, and the possibility of the mix bleeding into the adjacent cast stone.

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# HADDONSTONE

## MATERIAL DATA SHEET TecStone® WET-CAST MATERIAL Samples marked "T"

Haddonstone Ltd., The Forge House, Church Lane, East Haddon, Northampton, NN6 8DB, UK.  
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Haddonstone "TecStone"® Wet cast Limestone material consisting of over 60% large sized crushed limestone (up to 10mm particle size) together with fine crushed limestone and other fine aggregates. These aggregates are mixed together with white cement as the binder plus specialised admixtures and cement pigments if colours other than Portland are required. These admixtures include integral water proofers to reduce water absorption and specialised self-compacting additives. The consistency of the mix achieved is fluid to ensure that the mix penetrates into all the fine details of the mould.

Criteria	Technical Performance
Trade Name	Haddonstone "TecStone"®
Manufacturer	Haddonstone Ltd, The Forge House, East Haddon, Northampton, NN6 8DB
Material Density	2,350 kg/m <sup>3</sup>
Compressive Strength **	Minimum Compressive Cube Strength at 28 days is greater than 45 N/mm <sup>2</sup> (MPa)
Aggregate Size	0-10mm continuously graded
Finish	Light Acid Etched
Thermal Conductivity	1.63 W/mK
Water Absorption **	In accordance with UKCSA Technical Manual and BS 1217:2008, last 12 months testing no result above max permitted mean of 1.0mg/mm <sup>2</sup> nor any individual result exceed 1.3mg/mm <sup>2</sup>
Slip Resistance	"Smooth" Finish Paving tested to BS EN 1339 Unpolished Slip Resistance Value (USRV) was average 86: "Extremely low" potential for slip. Surface Micro-roughness test (Rz) was average 33.3µm: "Low" potential for slip.
Fire Resistance	Non-Flammable, Non-Combustible, does not give off Toxic Gases Reaction to Fire: Euroclass A1
Freeze / Thaw Resistance	Complies with UKCSA Standards so products deemed Freeze/Thaw Resistant
Handling Reinforcement	Where appropriate units may contain one or more high tensile, stainless steel, synthetic fibre or extruded Basalt reinforcement bar (30mm minimum cover)
Cast In Lifting Sockets available	Yes (on request) - Stainless Steel to BS EN 1090 and CE Marked
Cast In Fixings available	Yes (on request) - Stainless Steel to BS EN 1090 and CE Marked
Structural Reinforcement available	Yes (on request) - subject to submittal of Structural Engineers design
Colours Available	Portland, Bath, Ivory Limestone, Slate, Terracotta, Coade (special colour match service also available)

**\*\* Testing is carried out in house, or periodically by outside independent laboratories in accordance with UKCSA standards**

For a full list of standards please refer to UK Cast Stone Association (UKCSA), of which Haddonstone is a Full Member:  
This Technical Data Sheet was produced by Haddonstone Ltd, The Forge House, East Haddon, Northampton, NN6 8DB, United Kingdom. At the time publication all information to our knowledge is specified correctly. The company reserves the right to change the specification of the product at any time without prior notice to third parties.