CEDRAL

The World of Roofs

FIBRE CEMENT SLATES

PROTECT YOUR ROOF AND WHAT'S UNDER IT

etex inspiring ways of living

WHY CHOOSE CEDRAL SLATES FOR YOUR ROOF?

CONTENTS


3 WHY CHOOSE CEDRAL SLATES FOR YOUR ROOF?


5 WHY CHOOSE FIBRE CEMENT?


6 RIVENDALE


8 BIRKDALE


10 THRUTONE SMOOTH


12 THRUTONE TEXTURED


14 CASE STUDIES


18 PROPERTIES & PERFORMANCE


20 SUPPORT & BACK-UP


22 SUSTAINABILITY & ENVIRONMENT

Our British Heritage

An integral part of the homes all across the UK for over a century, Cedral slates have deep-rooted history and heritage.

Formerly under the brand name of Eternit we are the UK's most experienced company when it comes to fibre cement slates and are proud to have been putting roofs over heads for decades.

As part of the global building materials group Etex, our residential range of products now unites worldwide under the Cedral brand, offering you more choice, more services and more expertise to make your build as easy as possible.

Beautiful, affordable, sustainable

We are committed to driving the industry forward by developing beautiful, affordable and environmentally sustainable building products. Everything we do is underpinned by a dedication to striking a balance between aesthetics and quality, along with eco-friendliness, as sustainability and energy efficiency become more prevalent than ever before.

With local advisors across all corners of the UK as well as a dedicated internal customer service and technical support department, the Cedral team are on hand to guide you through every stage of your project.

WHY CHOOSE FIBRE CEMENT?

Fibre cement is a durable mineral material, light in weight and weather resistant. Composed of cement, cellulose, sand, synthetic fibres and water, it is incredibly strong, versatile and has many advantages.

Durable
Fibre cement is tough enough to withstand the most volatile weather conditions (frost, heavy rain, intense heat, light).

Fire resistant
Fibre cement has excellent fire behaviour (fire class A2-s1, d0 according to EN 13501-1).

Sustainable
While fibre cement has been around for decades, innovations in technology ensure it contributes to eco-construction and respects the environment. A light-weight material, it considerably reduces the carbon footprint of any build.

Kerb Appeal
Our slates come in a range of beautiful colours, textures and shapes and can be installed in many different ways, meaning you can choose to fit in or stand out.

YOUR HOME
EXPRESSES WHO YOU ARE & WHAT YOU LIKE

Your personality is reflected in your interior but also in the exterior of your home. Your roof must also stand the test of time. Cedral fibre cement slates are an ideal material offering both beauty and performance. Our slates are the strongest on the market and offer maximum design scope, so whatever your roofing project, Cedral has got you covered.

RIVENDALE
FIBRE CEMENT SLATES

Cedral Rivendale slates are designed to reflect the qualities of natural slate, at a fraction of the cost. Available in Blue Black, Cromleigh Graphite or Heather, Rivendale slates have a beautifully textured surface and dressed edges, combining the benefit of modern slate technology with the look of a natural slate. With more cement and fibres than any other, all Cedral slates are the strongest slates in the market.

✓ *Finely detailed surface*

✓ *Dressed edges*

✓ *Replicates natural slate*

The printing process restricts the exact representation of colours. For true colour reference, please request product samples.

Technical data

Fixing method	Nail and rivet	Slate hooks
Size of slate	600mm x 300mm	600mm x 300mm
Minimum pitch*		
Moderate exposure	22.5° (100mm lap) 20° (110mm lap)	20° (150mm lap)
Severe exposure	25° (100mm lap) 22.5° (110mm lap)	20° (150mm lap)
Maximum pitch	90°	90°
Typical laps	100, 110mm	150mm
Maximum gauge	245-250mm	225mm
Slate thickness	4mm	4mm
Covering capacity (net)	13.4 slates/m^2 (100mm lap) 13.6 slates/m^2 (110mm lap)	14.8 slates/m^2 (150mm lap)
Weight of slating (approx.)	20.4 kg/m^2 (0.20 kN/m^2) at 100mm lap 20.9 kg/m^2 (0.20 kN/m^2) at 110mm lap	22.8 kg/m^2 at 150mm lap
Battens required (net)	4.00 lin.m/m^2 at 100mm lap 4.08 lin.m/m^2 at 110mm lap	4.45 lin.m/m^2 at 150mm lap
Batten size recommended (fixed to BS 5534)	38 x 25mm for rafters/supports not exceeding 450mm centres 50 x 25mm for rafters/supports not exceeding 600mm centres	
Fixings	Slate nails (30 x 2.65mm) Copper disc rivets (19mm dia. x 2mm stem)	Slate hooks (150mm) Slate nails** (30 x 2.65mm) Copper disc rivets** (19mm dia. x 2mm stem)
Fittings screws	14 gauge self sealing	14 gauge self sealing
Authority	BS EN 492	BS EN 492

Cedral fibre cement slates meet the strength requirement of BS EN 492, achieving an average bending movement greater than 50 NM/M (Class B). Cedral Fibre Cement Slates have an average density of 1970kg/m^3 (minimum of 1750kg/m^3) when tested to BS EN492 and a nominal thickness of 4mm.

* The minimum recommended pitch and lap may be influenced by special circumstances, please contact the Technical Advisory Team.

** For local areas of roof

† May be subject to extended lead times

Sustainability

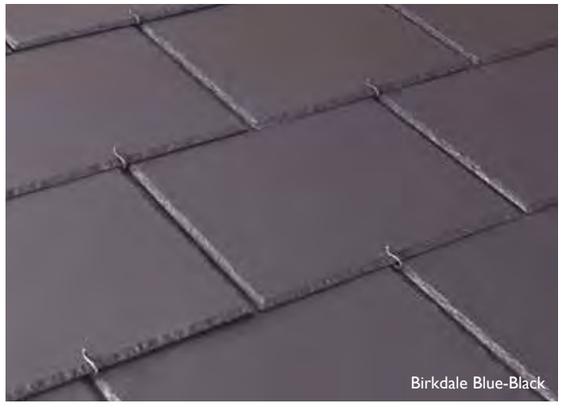
Green guide rating	A+ (Element ref: 812410008)
BES 6001	Very good – can achieve 3 credits
Credit uplift available with EPD	
Embodied carbon	Low carbon footprint of 13 CO_2e/m^2

Rivendale Blue-Black

Rivendale Cromleigh Graphite†

BIRKDALE
FIBRE CEMENT SLATES

Cedral Birkdale slates combine a smooth surface with a dressed edge. Perfect in both wild spaces or urban places, this slate is perfect for both traditional and modern builds. We pack more cement and fibres into our slates ensuring they are the strongest and most durable for our customers.


Birkdale Blue-Black

Technical data

Fixing method	Nail and rivet	Slate hooks
Size of slate	600mm x 300mm	600mm x 300mm
Minimum pitch*		
Moderate exposure	22.5° (100mm lap) 20° (110mm lap)	20° (150mm lap)
Severe exposure	25° (100mm lap) 22.5° (110mm lap)	20° (150mm lap)
Maximum pitch	90°	90°
Typical laps	100, 110mm	150mm
Maximum gauge	245-250mm	225mm
Slate thickness	4mm	4mm
Covering capacity (net)	13.4 slates/m^2 (100mm lap) 13.6 slates/m^2 (110mm lap)	14.8 slates/m^2 (150mm lap)
Weight of slating (approx.)	20.4 kg/m^2 (0.20 kN/m^2) at 100mm lap 20.9 kg/m^2 (0.20 kN/m^2) at 110mm lap	22.8 kg/m^2 at 150mm lap
Battens required (net)	4.00 lin.m/m^2 at 100mm lap 4.08 lin.m/m^2 at 110mm lap	4.45 lin.m/m^2 at 150mm lap
Batten size recommended (fixed to BS 5534)	38 x 25mm for rafters/supports not exceeding 450mm centres 50 x 25mm for rafters/supports not exceeding 600mm centres	
Fixings	Slate nails (30 x 2.65mm) Copper disc rivets (19mm dia. x 2mm stem)	Slate hooks (150mm) Slate nails** (30 x 2.65mm) Copper disc rivets** (19mm dia. x 2mm stem)
Fittings screws	14 gauge self sealing	14 gauge self sealing
Authority	BS EN 492	BS EN 492

Cedral fibre cement slates meet the strength requirement of BS EN 492, achieving an average bending movement greater than 50 NM/M (Class B). Cedral Fibre Cement Slates have an average density of 1970kg/m^3 (minimum of 1750kg/m^3) when tested to BS EN492 and a nominal thickness of 4mm.

* The minimum recommended pitch and lap may be influenced by special circumstances, please contact the Technical Advisory Team.

** For local areas of roof

Sustainability

Green guide rating	A+ (Element ref: 812410008)
BES 6001	Very good – can achieve 3 credits
Credit uplift available with EPD	
Embodied carbon	Low carbon footprint of 13 CO_2e/m^2

The printing process restricts the exact representation of colours. For true colour reference, please request product samples.

✓ *Smooth surface*

✓ *Dressed edges*

✓ *Traditional appearance*

THRUTONE SMOOTH

FIBRE CEMENT SLATES

Cedral Thrutone Smooth slates have a superb smooth finish and square edges, which will result in a classic, elegant roof. Our fibre cement slates are unmatched in strength, giving you peace of mind when you choose Cedral for your roof.

✓ *Smooth surface*

✓ *Square edges*

✓ *Clean, sharp lines*

Technical data

Size of slate	600mm x 300mm	500mm x 250mm‡
Minimum pitch*		
Moderate exposure	22.5° (100mm lap) 20° (110mm lap)	22.5° (100mm lap)
Severe exposure	25° (100mm lap) 22.5° (110mm lap)	25° (100mm lap)
Maximum pitch	90°	90°
Typical laps	100, 110mm	100mm
Maximum gauge	245-250mm	200mm
Slate thickness	4mm	4mm
Covering capacity (net)	13.4 slates/m^2 at 100mm lap 13.6 slates/m^2 at 110mm lap	20.0 slates/m^2 at 100mm lap
Weight of slating (approx.)	20.4 kg/m^2 (0.20 kN/m^2) at 100mm lap 20.9 kg/m^2 (0.20 kN/m^2) at 110mm lap	21.3 kg/m^2 (0.21 kN/m^2) at 100mm lap
Battens required (net)	4.00 lin.m/m^2 at 100mm lap 4.08 lin.m/m^2 at 110mm lap	5.00 lin.m/m^2 at 100mm lap
Batten size recommended (fixed to BS 5534)	38 x 25mm for rafters/supports not exceeding 450mm centres 50 x 25mm for rafters/supports not exceeding 600mm centres	
Fixings	Slate nails (30 x 2.65mm) Copper disc rivets (19mm dia. x 2mm stem)	Slate nails (30 x 2.65mm) Copper disc rivets (19mm dia. x 2mm stem)
Fittings screws	14 gauge self sealing	14 gauge self sealing
Authority	BS EN 492	BS EN 492

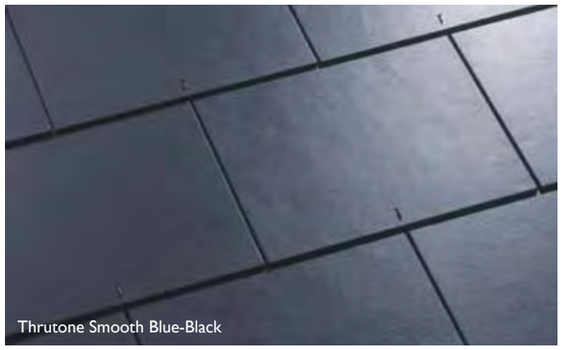
Cedral fibre cement slates meet the strength requirement of BS EN 492, achieving an average bending movement greater than 50 NM/M (Class B). Cedral Fibre Cement Slates have an average density of 1970kg/m^3 (minimum of 1750kg/m^3) when tested to BS EN492 and a nominal thickness of 4mm.

* The minimum recommended pitch and lap may be influenced by special circumstances, please contact the Technical Advisory Team.

† Made to order

Sustainability

Green guide rating	A+ (Element ref: 812410008)
BES 6001	Very good – can achieve 3 credits
Credit uplift available with EPD	
Embodied carbon	Low carbon footprint of 13 CO_2e/m^2



Thrutone Smooth Blue-Black

Thrutone Smooth Terracotta†

Thrutone Smooth Turf Brown†

Thrutone Smooth Stone Green†

Thrutone Smooth Russet†

Thrutone Smooth Heather†

Other shapes

Bullnose†

Scalloped†

Chamfered†

The printing process restricts the exact representation of colours. For true colour reference, please request product samples.

THRUTONE TEXTURED

FIBRE CEMENT SLATES

Cedral Thrutone Textured slates offer the same strength and durability as our flagship smooth slate, but have a subtle, textured finish which will enhance any roof and home.

Thrutone Textured Blue-Black

Thrutone Textured Terracotta†

Thrutone Textured Turf Brown†

Thrutone Textured Stone Green†

Thrutone Textured Russet†

Thrutone Textured Heather†

Technical data

Size of slate	600mm x 300mm
Minimum pitch*	
Moderate exposure	22.5° (100mm lap) 20° (110mm lap)
Severe exposure	25° (100mm lap) 22.5° (110mm lap)
Maximum pitch	90°
Typical laps	100, 110mm
Maximum gauge	245-250mm
Slate thickness	4mm
Covering capacity (net)	13.4 slates/m^2 at 100mm lap 13.6 slates/m^2 at 110mm lap
Weight of slating (approx.)	20.4 kg/m^2 (0.20 kN/m^2) at 100mm lap 20.9 kg/m^2 (0.20 kN/m^2) at 110mm lap
Battens required (net)	4.00 lin.m/m^2 at 100mm lap 4.08 lin.m/m^2 at 110mm lap
Batten size recommended (fixed to BS 5534)	38 x 25mm for rafters/supports not exceeding 450mm centres 50 x 25mm for rafters/supports not exceeding 600mm centres
Fixings	Slate nails (30 x 2.65mm) Copper disc rivets (19mm dia. x 2mm stem)
Fittings screws	14 gauge self sealing
Authority	BS EN 492

Cedral fibre cement slates meet the strength requirement of BS EN 492, achieving an average bending movement greater than 50 NM/M (Class B). Cedral Fibre Cement Slates have an average density of 1970kg/m^3 (minimum of 1750kg/m^3) when tested to BS EN492 and a nominal thickness of 4mm.

* The minimum recommended pitch and lap may be influenced by special circumstances, please contact the Technical Advisory Team.

† Made to order

Sustainability

Green guide rating	A+ (Element ref: 812410008)
BES 6001	Very good – can achieve 3 credits
Credit uplift available with EPD	
Embodied carbon	Low carbon footprint of 13 CO_2e/m^2

The printing process restricts the exact representation of colours. For true colour reference, please request product samples.

✓ *Detailed surface*

✓ *Square edges*

✓ *Resembles natural slate*

CASE STUDIES

Birkdale Blue-Black, Holcombe Moor Training Camp

Rivendale Blue-Black, Ronald McDonald House

CASE STUDIES

Rivendale, Mount Wise

Birkdale, Cedar Court

Thrutone Blue-Black, Edith Cavell Hospital

Thutone Smooth, Social Housing Development

PROPERTIES & PERFORMANCE

Features of Cedral fibre cement slates

- Can achieve an A+ rating in the BRE Green Guide
- Low carbon footprint of 13 CO_2 e/m^2
- BES 6001 certified 'Very Good'
- Proven in application to last in excess of 60 years
- Clean, low energy production process
- Fully recyclable

Authority

Cedral fibre cement slates are manufactured in accordance with a quality management system registered by BSI to BS EN ISO 9001 'Quality Management Systems requirements' for products manufactured to BS EN 492 'Cedral fibre cement slates and fittings – Product specification and test methods'.

Cedral fibre cement slates are also designed to meet the relevant performance requirements of BS 5534 'Code of practice for slating and tiling (including shingles)'.

Additionally, the manufacturing location operates an environmental management system, registered with the BSI as meeting the requirements of BS EN ISO 14001 'Environmental management systems – Specification with guidance for use' and Health and Safety Standard OHSAS 18001.

Cedral fibre cement slates are also rated 'Very Good' to BES 6001 Framework Standard for Responsible Sourcing of Construction Products.

Batch coding

In accordance with the requirements of the product standard EN492: 2012, a manufacturing code is marked on the underside of a minimum of 15% of slates in the following format (e.g. T 2 14 20 C1 NT) – where the first character signifies the factory of origin; the second gives the specific coating line used; the next 6 characters denote the year, week and shift of manufacture as well as product type; The code ends with "NT".

Carbon footprinting

Cedral fibre cement slates can have a carbon footprint figure of as low as 13 CO_2e/m^2.

Recyclability

At 'end of life' crushed fibre cement products can be recycled without need for further processing, as a raw material for use in Portland clinker.

Environmental Product Declarations

An Environmental Product Declaration has been issued for Cedral fibre cement slates and is available on cedral.world.

Declarations of performance

Declarations of performance for all Cedral slates are available on cedral.world.

Composition and manufacture

Cedral fibre cement slates are manufactured from cement, water, selected cellulose and polymeric fibres, sheet formers and fillers which are all bonded together using the Hatschek rotational cylinder process. Slates are cut from formed base sheets, pressed and cured and in a separate process cured slates are sealed on the reverse, sprayed with an acrylic coating, cooled and stacked.

Density and thickness

Cedral Fibre Cement Slates have an average density of 1970kg/m³ (minimum of 1750kg/m³) when tested to BS EN492 and a nominal thickness of 4mm.

Performance

The slates are tested for resistance to wind driven rain and meet the requirements of BS 5534 'Code of practice for slating and tiling (including shingles)' with respect to windloading, when fixed in accordance with our recommendations.

Strength and durability

Cedral fibre cement slates meet the strength requirements of BS EN 492, achieving an average bending moment greater than 50Nm/m (Class B).

Fire resistance

Cedral fibre cement slates are non-combustible and considered 'deemed to satisfy without the need for further testing' in relation to the requirements for external fire performance when tested for fire protection and spread of flame to BS EN 1187 'Test methods for external fire exposure to roofs' (BS 476-3).

There are no restrictions on their use under the Building Regulations and they achieve a Class 1 surface spread of flame when tested to BS 476-7 and are classified Class O.A roof incorporating the slates is designated AA as referred to in Table A5 of Notional designations of roof coverings.

Fixing specification

Slates should be fixed in accordance with the recommendations of BS 5534. The Technical Advisory Service can provide a fixing specification, given the relevant criteria relating to type of slate, site location, topography, and building/roof dimensions.

Consideration should be given to sealing any cut edges to prevent potential efflorescence showing. Please contact the Technical Advisory Team for more details at techuk@etexgroup.com

Environmental effects

Thermal

The thermal resistance (R) of Cedral fibre cement slates when dry is 0.011m²K/W.

For the purpose of thermal transmittance calculations, the 'R' values above should be substituted by a figure of 0.12m2K/W which includes the roof covering and airspace behind the slates. An 'R' value of 0.002m2K/W should be added for the roof underlay.

Heat

After an initial period of stabilisation, slates are normally unaffected by the range of climatic temperatures (-20°C to +70°C). Slates should be laid with a maximum gap of 5mm to accommodate any movement induced by changes in temperature and to facilitate the fitting of the tail rivet.

Frost

Unaffected by frost and meets the requirements of BS EN 492.

Sunlight

The acrylic coating used on the slate surface has good colour stability proven over long periods of exposure to UV and sunlight. Some lightening may occur over a period of exposure to sunlight and normal weathering, which may affect the surface coating. This gradual lightening is similar to that experienced with natural slate.

Atmospheric pollution

Suitable for most rural, marine and normal industrial environments. Avoid discharge of gases or liquids from chemical processes onto the surface of the slates.

Resistant to all but the most highly polluted atmospheres where sulphur dioxide levels exceed 70 microgrammes/m3 of air.

For advice on the suitability of application, please contact the Technical advisory team.

Electricity

Cedral fibre cement slates are electronically insulating. Reference should be made to BS 6651 for recommendations on the protection of buildings against lightning strikes.

Biological effects

Birds and rodents

Not affected or degraded by birds, rodents or insects.

Mosses and lichens

Water absorption of the slates is around 18%. The growth of mosses and lichens may occur over time, but does not adversely affect their performance. The acrylic coating helps to inhibit organic growth on the surface for a period of 5 to 15 years. Removal may only be required if they affect the drainage of water from the roof.

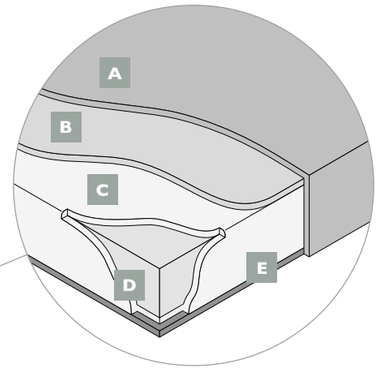
Health and Safety Guidance Sheets

Cedral fibre cement slates can be simply scored and snapped with no dust creation, or cut with standard hand tools without requiring compliance with Health and Safety Guidance Sheet S (August 2012). If cutting slates with machine tools, measures to reduce the effect of dust should be taken in accordance with the HSE Guidance Note EH 40 'Occupational Exposure Limits' and EH 44 'Dust in the workplace: general principles of protection'.

Anatomy of Rivendale fibre cement slate

Fibre cement slate coatings

- **A** UV-resistant acrylic coating
- **B** Primer coating
- **C** Secondary coating (cement/pigment/iron oxide)
- **D** Fibre cement base sheet
- **E** Clear wax coating



SUPPORT & BACKUP

At Cedral, we are committed to providing outstanding customer care. Whether you are embarking on your own self-build or renovation project, or are an architect, roofing installer or housing developer, we are there to support your project at every stage.

From inspiration to information, Cedral roofs have got you covered.

Customer Service & Sales

We have a team of highly experienced local advisors covering every corner of the UK who are available to discuss your roofing requirements, as well as a dedicated internal customer service team who are always on hand to support you.

Email: infouk@etexgroup.com
Tel: +44 (0) 1283 501 540

To find your nearest stockist, please visit www.cedral.world

Technical Support

Specifiers and installers require prompt, knowledgeable and detailed responses to a vast range of enquiries covering everything from the embodied energy of a typical roof slate, to the different ventilation options available, as well as installation advice and guidance.

Our Technical Advisory Team is staffed by a qualified team with specialist knowledge not only of all Cedral roofing products, but also crucially, of how those systems integrate with other roofing components and comply with Building Regulations, Health and Safety, environmental and other critical roofing criteria.

For all technical queries, please contact us at:
Email: techuk@etexgroup.com
Tel: +44 (0) 1283 501 505

RAISING THE STANDARDS OF ROOFING

EAVES
Are the eaves constructed properly?

BATTEN GAUGE
Are the battens set to the gauge properly?

UNDERLAY
Is the underlay laid correctly?

FIXINGS
Are the fixing products installed correctly?

VENTILATION
Does the roof ventilation comply with the building regulations?

AT CEDRAL ROOFS, WE HAVE A SIMPLE 10-POINT CHECKLIST TO ENSURE A PERFECT ROOF

THE RIDGE
Is the ridge fixed in accordance with Cedral's recommendations?

THE HIP
Is the hip fixed in accordance with Cedral's recommendations?

PITCHED METAL VALLEY
Is the valley constructed correctly with valley boards set at correct level?

THE VERGE
Is the verge correctly detailed?

SLATES
Have the slates been laid correctly?

You can also download our fixing guide on cedral.world for more detailed guidance on installation of our Cedral fibre cement slates.

SUSTAINABILITY & ENVIRONMENT

At Cedral, we are dedicated to building more beautiful worlds and take every measure to ensure our products are sustainable and respectful to the environment.

As part of the Etex group, we have been at the forefront of sustainability in our industry for a very long time and are committed to reducing the environmental and social impacts of our operations. We foster a strong environmental awareness among our workforce and invest in a range of resources to achieve tangible environmental progress through our ongoing environmental improvement programme, as part of the ISO 14001 standard. We are also fully committed to the maintenance of a healthy and safe environment for our employees, for our customers and the local communities in which we operate through our ongoing certification to the OHSAS 18001 safety management system. Annual audits provide third-party assessment and verification of our efforts to manage our environment and social impacts.

BES 6001 'Very good'

Demonstrating our commitment to sustainable building, all our roofing products are certified 'Very Good' under the BES 6001 standard for responsible sourcing and therefore contribute to extra credits under BREEAM and The Code for Sustainable Homes.

Adoption of the BES 6001 Framework Standard for Responsible Sourcing enables us to take a more responsible and sustainable approach to the sourcing of the materials that go into making our products. The BRE standard, BES 6001, has been published to enable construction product manufacturers, like Etex, to ensure and then prove that their products have been made with constituent materials that have been responsibly sourced.

Cement suppliers are chosen for their proximity to factories in order to minimise transport distances. Wood cellulose for fibre cement production is sourced from eco-certified plantations (FSC & PEFC). Timber used in our pallets are sourced from FSC managed forests, and wherever possible, recyclable cardboard and plastics are used for banding, interleaves, bags and boxes.

Embodied carbon

Embodied carbon figures are available at product level for our entire roofing range. This absolute clarity of environmental information allows our customers to make informed choices.

BREEAM and the Code for Sustainable Homes

Credits gained from specifying our A-rated products, combined with additional credits from BES 6001 make our products more beneficial to the specifier.

Quality standard

All Cedral's factories are ISO 9001, 14001 and ISO OHSAS 18001 accredited. They achieve the highest standards in quality, health and safety and the environment.

CE Marking

All of our products covered by an EN Standard carry an appropriate CE Mark. This means that our products meet the required safety standards and have a guaranteed level of quality.

CEDRAL

The World of Roofs

more at cedral.world

Tel 01283 501555 Email infouk@etexgroup.com
Etex (Exteriors) UK, Wellington Road, Burton-upon-Trent, Staffordshire DE14 2AP

May 2020

13” Ball & Collared Base (see p77), Block S140B, Cap S130 & Coping T150.

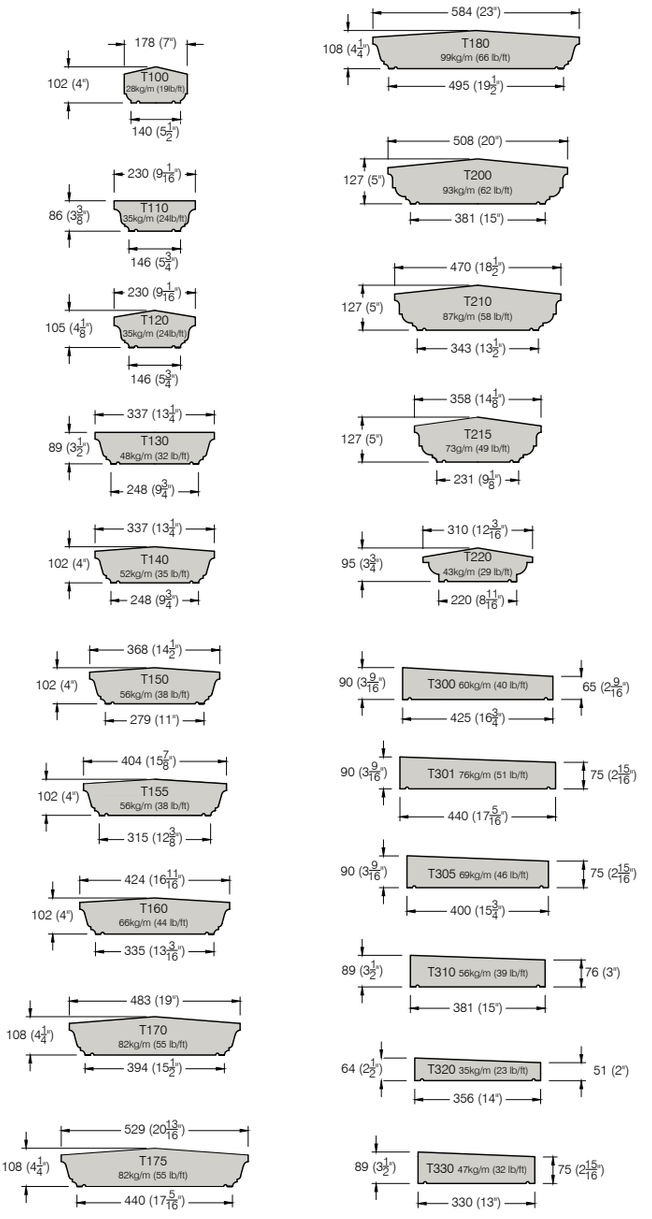
ARCHITECTURAL STONEWORK
COPINGS & CAPPINGS

The Haddonstone collection includes copings and cappings in many designs. Most requirements for straight flat runs of wall, curved wall sections, ramped walls, serpentine walls and stepped walls can be met from our standard range. We would be pleased to discuss your special requirements.

For standard lengths, please refer to the price list. Custom-made Copings and Cappings are available on request.

All copings and cappings are supplied throated although, in certain applications, not necessarily to BS 5642-2: 1983 + A1: 2014. We strongly recommend that you refer to Eurocode 6 and PD 6697: 2010.

TS Tech Sheet No. WC10, WC20 & WC30



Refer to the Architectural Supplement for specific US designs.

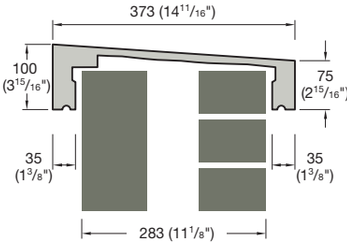
For Coping and Capping Terminology, see page 164

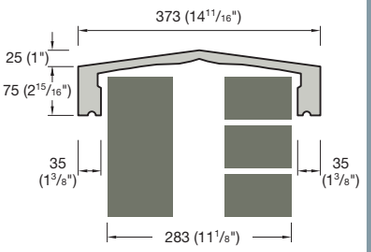
ARCHITECTURAL STONEWORK
TECLITE CAPPINGS

Alongside our range of Haddonstone Copings and Cappings, the company is also able to manufacture a number of Capping designs in the unique TecLite material, see page 212.

TecLite designs are made using GRC/GFRC technology allowing thin-wall sections for lightness and ease of handling on site. The ability to mask the finished edge of the brickwork or sub-structure can also save time on site.

TS Tech Sheet No. TL60 & TL61



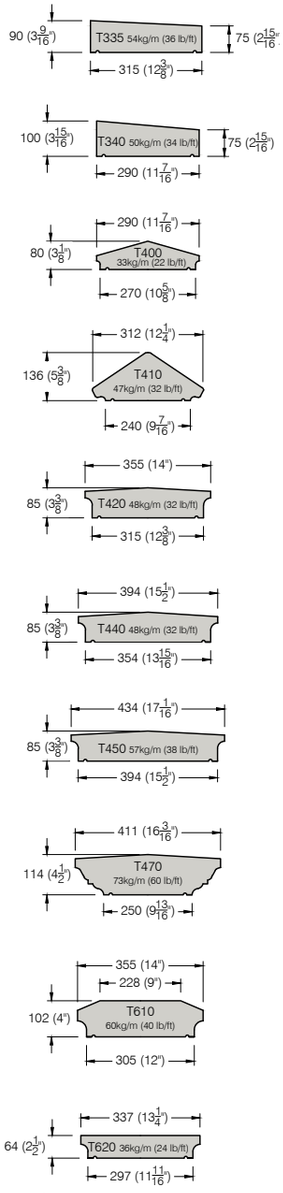


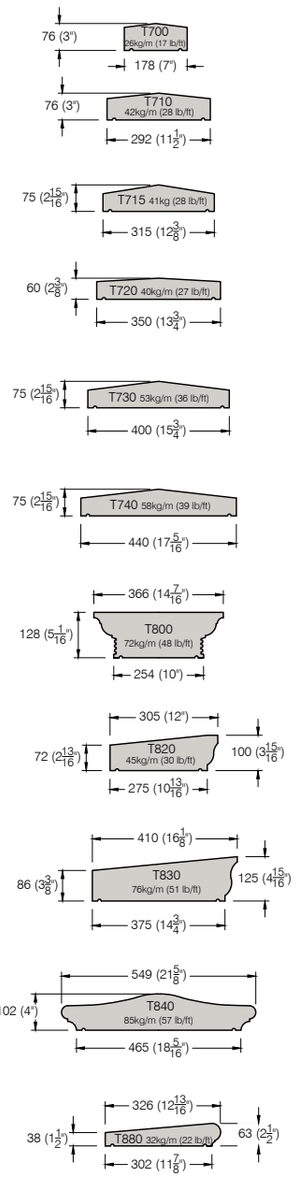
TLT390
24kg/m (16 lb/ft)

TLT790
23kg/m (15 lb/ft)

TLT395
As TLT390 except 393mm (15 1/2") width to suit 303mm (11 15/16") wall 25kg/m (17 lb/ft)

TLT795
As TLT790 except 393mm (15 1/2") width to suit 303mm (11 15/16") wall 24kg/m (16 lb/ft)



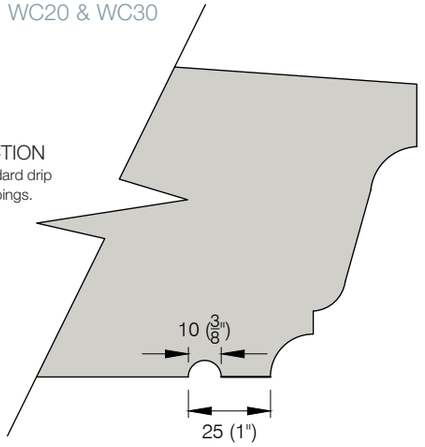


ARCHITECTURAL STONEWORK COPINGS & CAPPINGS TERMINOLOGY

To assist our private and professional clients with the ordering of Haddonstone copings and cappings, we have introduced this new page to the catalogue containing all the relevant terminology required. For further details relating to coping and capping terminology, please either contact your nearest Haddonstone office or refer to:

TS Tech Sheet No. WC10, WC20 & WC30

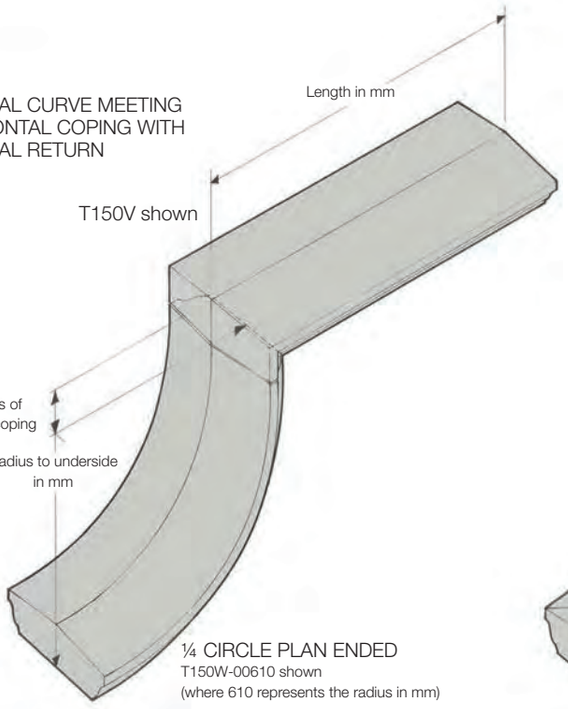
TYPICAL COPING STONE SECTION
Showing position and dimensions of standard drip detail incorporated in all Haddonstone copings. T150 shown.



Pier Caps S600B/C and S215C with Coping T130.

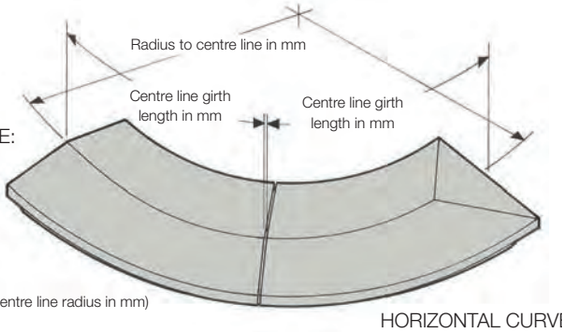
VERTICAL CURVE MEETING HORIZONTAL COPING WITH VERTICAL RETURN

T150V shown



¼ CIRCLE PLAN ENDED
T150W-00610 shown
(where 610 represents the radius in mm)

HORIZONTAL CURVE: PLAIN ENDED

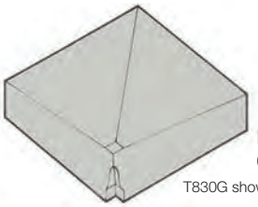


T150H-00787 shown.
(where 787 represents the centre line radius in mm)

HORIZONTAL CURVE: TERMINAL END

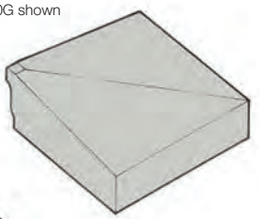
CORNER STONE
(Symmetrical coping only)

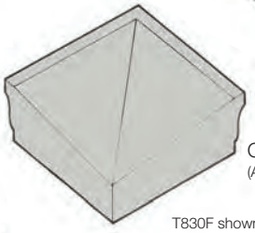
T150E shown



INSIDE CORNER STONE
(Asymmetrical coping only)

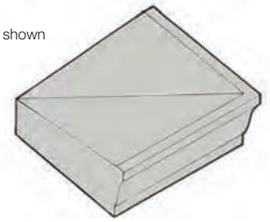
T830G shown



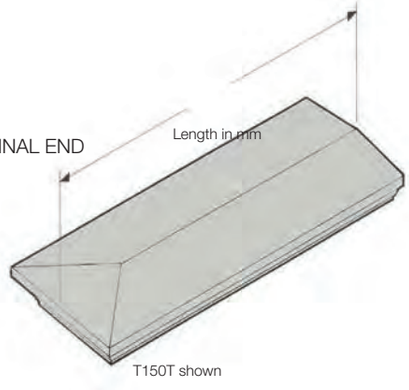


OUTSIDE CORNER STONE
(Asymmetrical coping only)

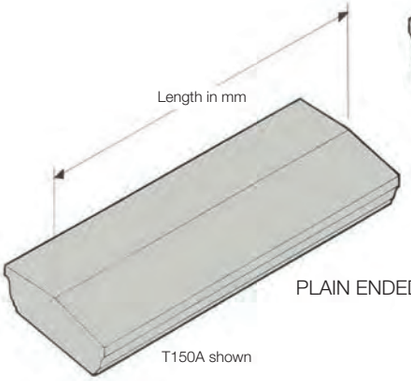
T830F shown



TERMINAL END



T150T shown



PLAIN ENDED

T150A shown

Haddonstone Ltd +44 (0)1604 770711 info@haddonstone.co.uk • Haddonstone (USA) Ltd 866 733 8225 stone@haddonstone.com

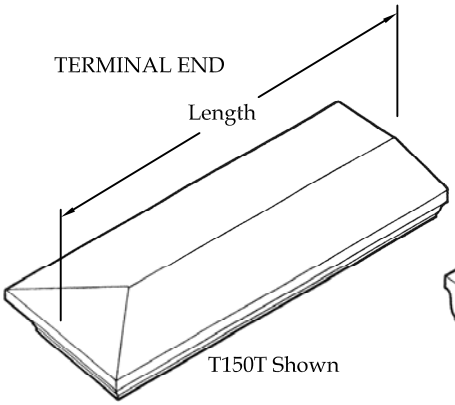
COPING & CAPPING TERMINOLOGY

WITH REFERENCE CODES

All copings will be supplied throated

TERMINAL END

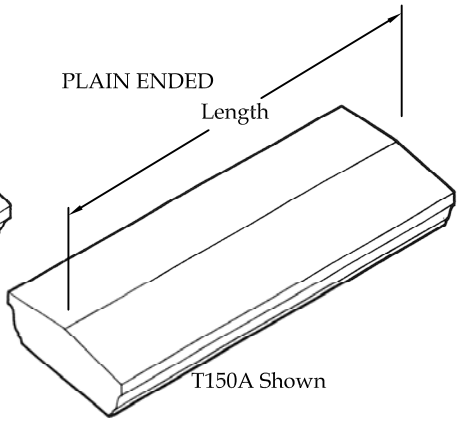
Length



T150T Shown

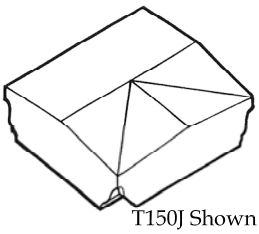
PLAIN ENDED

Length



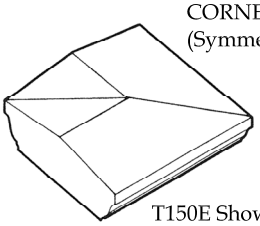
T150A Shown

TEE JUNCTION

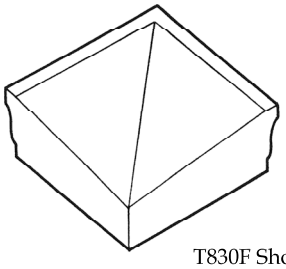


T150J Shown

CORNER STONE
(Symmetrical coping only)

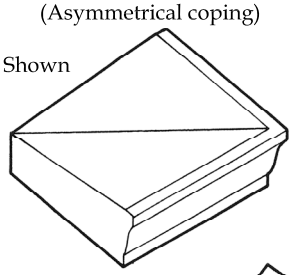


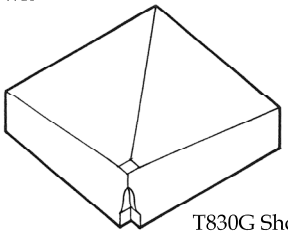
T150E Shown



OUTSIDE CORNER STONE
(Asymmetrical coping)

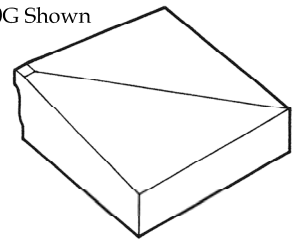
T830F Shown



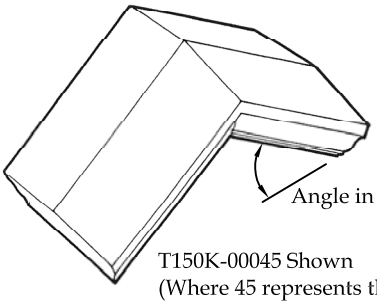


INSIDE CORNER STONE
(Asymmetrical coping only)

T830G Shown



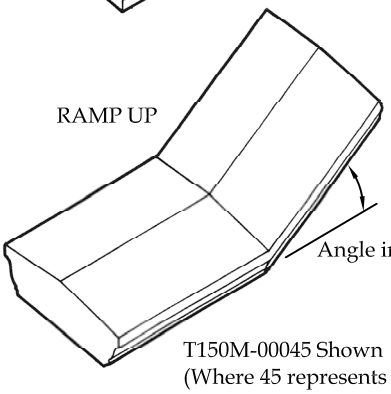
APEX STONE



Angle in degrees

T150K-00045 Shown
(Where 45 represents the angle in degrees)

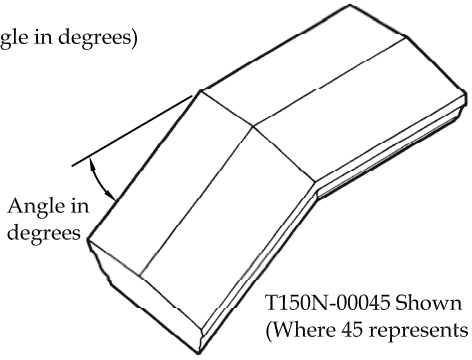
RAMP UP



Angle in degrees

T150M-00045 Shown
(Where 45 represents the angle in degrees)

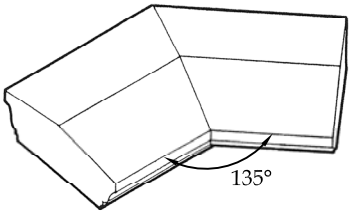
RAMP DOWN



Angle in degrees

T150N-00045 Shown
(Where 45 represents the angle in degrees)

135° CORNER STONE



135°

T150O Shown

NOTE: Not all copings are available to the above specifications. Further information on availability and other designs, including spirals, is obtainable on request.

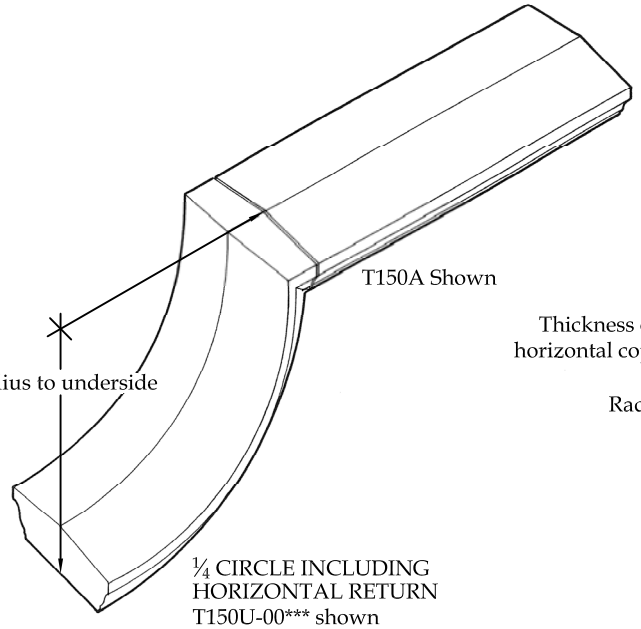
Haddonstone Ltd +44 (0)1604 770711 info@haddonstone.co.uk • Haddonstone (USA) Ltd 866 733 8225 stone@haddonstone.com

COPING & CAPPING TERMINOLOGY

WITH REFERENCE CODES

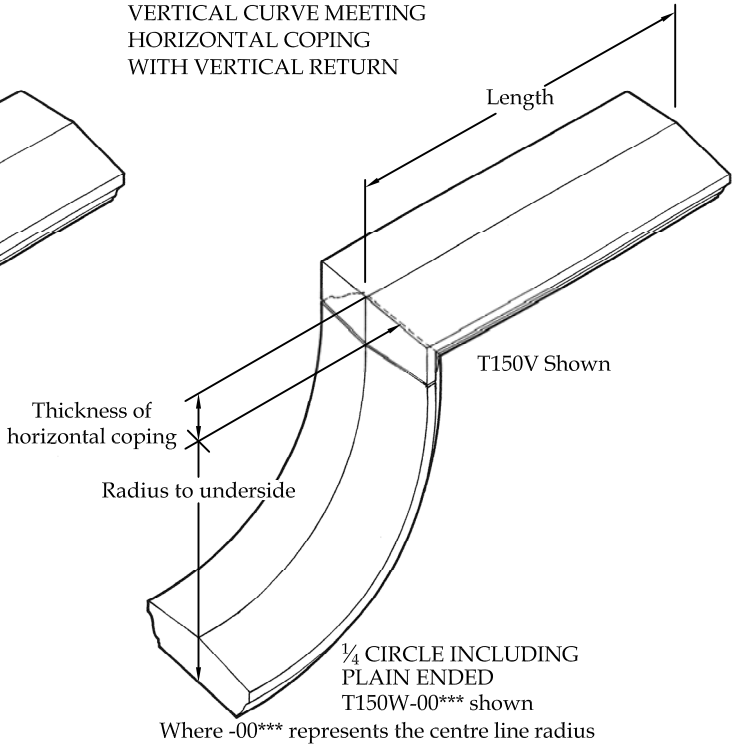
All copings will be supplied throated

VERTICAL CURVE WITH HORIZONTAL RETURN MEETING PLAIN ENDED HORIZONTAL COPING



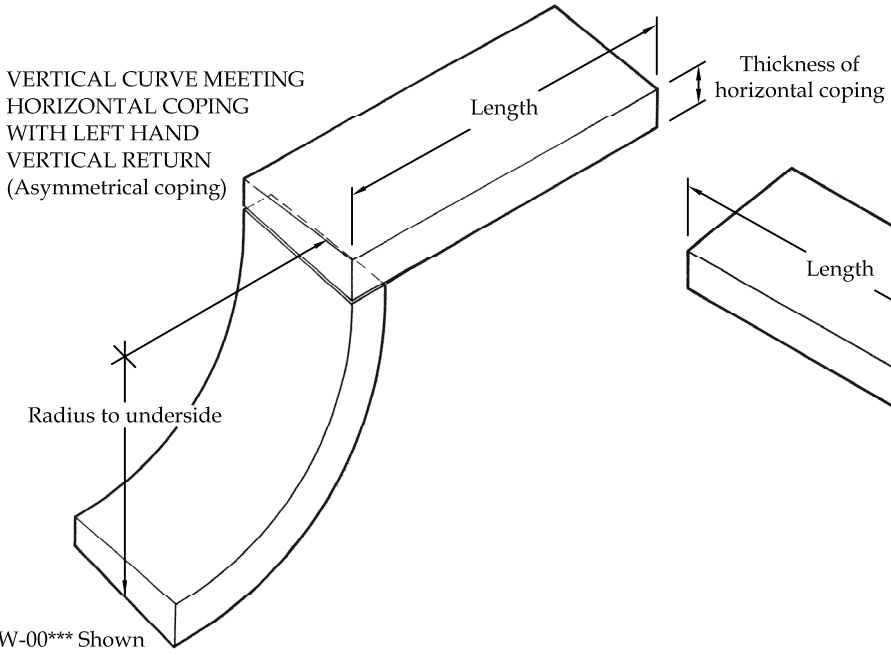
¼ CIRCLE INCLUDING HORIZONTAL RETURN
T150U-00*** shown
Where -00*** represents the centre line radius

VERTICAL CURVE MEETING HORIZONTAL COPING WITH VERTICAL RETURN



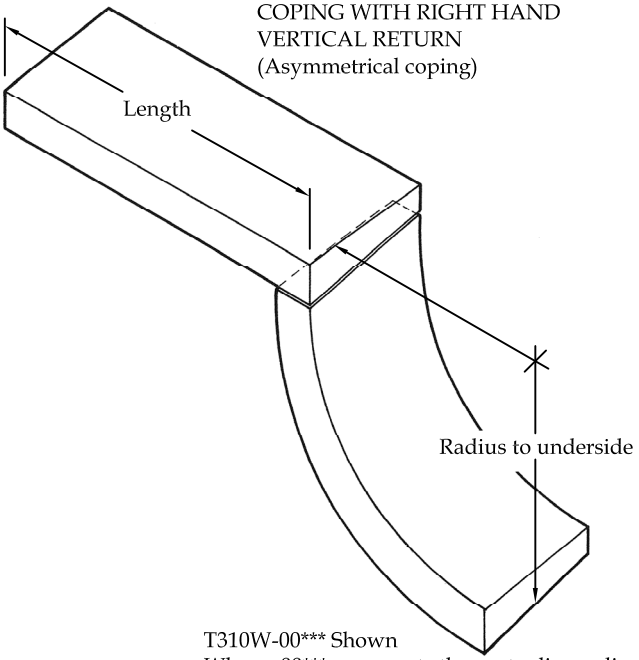
¼ CIRCLE INCLUDING PLAIN ENDED
T150W-00*** shown
Where -00*** represents the centre line radius

VERTICAL CURVE MEETING HORIZONTAL COPING WITH LEFT HAND VERTICAL RETURN (Asymmetrical coping)



T310W-00*** Shown
Where -00*** represents the centre line radius

VERTICAL CURVE MEETING HORIZONTAL COPING WITH RIGHT HAND VERTICAL RETURN (Asymmetrical coping)



T310W-00*** Shown
Where -00*** represents the centre line radius

NOTE: Not all copings are available to the above specifications. Further information on availability and other designs, including spirals, is obtainable on request.
All radii in mm (US: inches)

 Do not scale

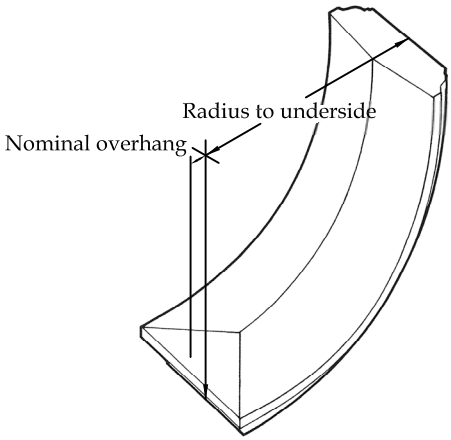
Haddonstone Ltd +44 (0)1604 770711 info@haddonstone.co.uk • Haddonstone (USA) Ltd 866 733 8225 stone@haddonstone.com

COPING & CAPPING TERMINOLOGY

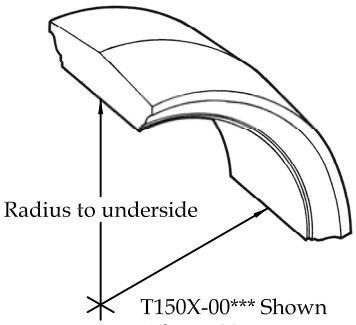
WITH REFERENCE CODES

All copings will be supplied throated

VERTICAL CURVE:
¼ CIRCLE PLUS TERMINAL END

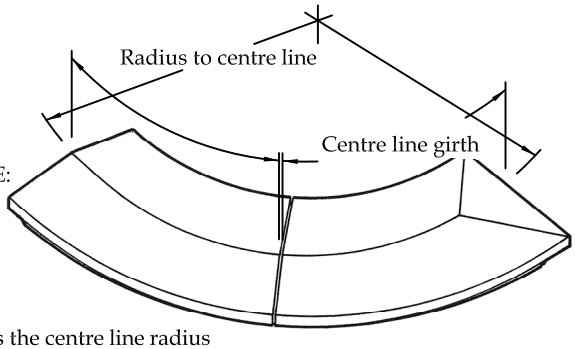


VERTICAL CURVE:
¼ CIRCLE ARCHED



T150X-00*** Shown
Where -00*** represents the centre line radius

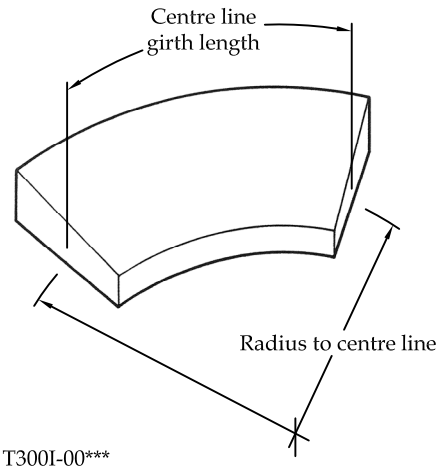
HORIZONTAL CURVE:
PLAIN ENDED



HORIZONTAL CURVE:
TERMINAL END
(Right hand terminal end shown)

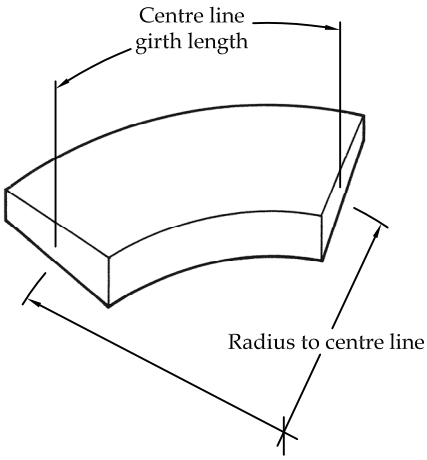
T150H-00***
Where -00*** represents the centre line radius

HORIZONTAL CURVE: WEATHERED INWARDS
(Asymmetrical coping)



T300I-00***
Where -00*** represents the centre line radius

HORIZONTAL CURVE: WEATHERED OUTWARDS
(Asymmetrical coping)



T300H-00***
Where -00*** represents the centre line radius

NOTE: Not all copings are available to the above specifications. Further information on availability and other designs, including spirals, is obtainable on request.

All dimensions in mm (US: inches)

Technical Data Sheet

GLAZING VISION

Pitchglaze Roof Window

201-TDS-UK-001 – v1.2 – 09 Jul 2020

CE

Name: Pitchglaze

Type: Fixed in-plane roof window

Description:

The Pitchglaze is a fixed roof window designed to provide maximum daylight with minimum visible internal structure. Supplied in either portrait or landscape formats, it is designed to be installed in-plane on pitched roof applications.

A variety of optional extras such as special colour and easy clean coating are available.

This product is robust and long-lasting, boasting excellent thermal performance and air tightness.

Intended Use: Fixed roof window to provide natural daylight and weather resistance. The product is fixed and does not open.

Internal Finished Opening Dimensions:

Min Span:	300 mm	Max Span:	3000 mm
Min Width:	300 mm	Max Width:	3000 mm
Min Area:	0.09 m^2	Max Area:	4.10 m^2
Min Roof Pitch:	15°	Max Roof Pitch:	60°

Note that the minimum and maximum span, width and pitch are dependent on various factors, your technical sales advisor will be happy to advise on these. Further information on roof preparation and product dimensions can be found on our website or by contacting your technical sales advisor.

Glazing: A wide variety of glazing specifications are available for this product. Your technical sales advisor will be happy to answer any questions regarding specific glass specifications or glazing performance requirements. Otherwise, quotes include suitable and cost effective glazing proposals.

Standard Colours: Qualicoat approved RAL 7015 slate grey outer, no inner framework is visible.

Performance and Weathertightness: The aluminium frame of the product employs a dual hardness EPDM insulating gasket to thermally isolate the frame from the interior of the building. Structural integrity is assured through the use of finite element analysis (FEA) and testing.

U-values are calculated for each product and will be supplied in our quote. Further information and specific performance details can be obtained from your technical sales advisor.

The product is sealed to the roof using butyl and silicone and fixed in place with structural fixings which are concealed with internal finishes leaving a sleek external finish.

The product has been thoroughly tested and is CE marked in accordance with BS EN 14351-1:2006+A2:2016, and has achieved the following classification results:

Size: 1000 mm span x 3000 mm width Pitch: 15°

Test	Standard	Classification/Declared Value	
Air permeability	BS EN 12207	Class 4	±750 Pa
Watertightness	BS EN 12208	Class E750	750 Pa
Wind resistance	BS EN 12210	Class E2400	±2400 Pa Serviceability ±3600 Pa Safety

Visit our website or contact your technical sales advisor for certification documentation.

Optional Extras:

The following optional extras are available for this standard product at additional cost:

Easy Clean Coating: A coating applied to the external face of the glass that facilitates water run-off. Helps the glass stay cleaner for longer and makes cleaning easier.

Special Colour: This product has a single colour as standard. This can be swapped for a special colour.

Flashing Kit: A kit containing all materials required to flash/weather the product into the surrounding roofing.

A suite of sales drawings is available.
Bespoke options may be available upon request but may incur additional design fees – contact your technical sales advisor for more information.

Technical Data Sheet

GLAZING VISION

Flushglaze Rooflight

402-TDS-UK-001 – v1.3 – 09 Jul 2020

Name: Flushglaze

Type: Fixed flat rooflight

Description:

The Flushglaze is a fixed product designed to provide maximum daylight with minimum visible internal structure. It is available as a standard product, a fire-rated product and as a walk-on product.

A variety of optional extras such as special colour and easy clean coating are available.

This product is robust and long-lasting, boasting excellent thermal performance and air tightness.

Intended Use: Fixed rooflight to provide natural daylight and weather resistance. The product is fixed and does not open. Only walk-on units may be walked on, and only fire-rated units are certified as such.

External Weathered Upstand Dimensions of Standard Flushglaze Unit:	Min Span:	400 mm	Max Span:	4200 mm
	Min Width:	400 mm	Max Width:	4200 mm
	Min Upstand Pitch:	3°	Max Upstand Pitch:	70°
	Glazing Vision recommends a pitch of at least 5° for standard units.			
External Weathered Upstand Dimensions of Walk-On Flushglaze Unit:	Min Span:	400 mm	Max Span:	4200 mm
	Min Width:	400 mm	Max Width:	4200 mm
	Min Upstand Pitch:	1°	Max Upstand Pitch:	70°
	Glazing Vision recommends a pitch of 1° for walk-on units.			
External Weathered Upstand Dimensions of Fire-Rated Flushglaze Unit:	Min Span:	400 mm	Max Span:	1500 mm
	Min Width:	400 mm	Max Width:	1500 mm
	Min Upstand Pitch:	3°	Max Upstand Pitch:	70°
	Glazing Vision recommends a pitch of at least 5° for fire-rated units.			

Note that the minimum and maximum span, width and pitch are dependent on various factors, your technical sales advisor will be happy to advise on these. Further information on upstand requirements and product dimensions can be found on our website or by contacting your technical sales advisor.

Glazing: A wide variety of glazing specifications are available for this product. Your technical sales advisor will be happy to answer any questions regarding specific glass specifications or glazing performance requirements. Otherwise, quotes include suitable and cost effective glazing proposals.

Unless otherwise stated, the default loadings used for specifying walk-on glass will be a distributed load of 1.50 kN/m^2 and a concentrated load of 2.00 kN per a 50 mm x 50 mm square area (standard domestic loadings). A variety of anti-slip finishes are available for walk-on glass.

Standard Colours: Qualicoat approved RAL 7015 slate grey outer, no inner framework is visible.

Performance and Weathertightness:

The aluminium frame of the product employs a dual hardness EPDM insulating gasket to thermally isolate the frame from the interior of the building. Structural integrity is assured through the use of finite element analysis (FEA) and testing.

U-values are calculated for each product and will be supplied in our quote. Further information and specific performance details can be obtained from your technical sales advisor.

Standard and walk-on products are sealed to the upstand using silicone. Fire-rated products are sealed to the upstand using ceramic fire-rated tape and fire-rated silicone. The product is fixed in place with structural fixings which are either concealed by a clip-on cover or with lead (or other material) flashing (wall abutted units) leaving a sleek external finish.

The standard Flushglaze unit has been thoroughly tested and achieved the following classification results:

Size: 2000 mm span x 2500 mm width Pitch: 0°

Test	Standard	Classification/Declared Value	
Air permeability	BS EN 12207	Class 4	±600 Pa
Watertightness	BS EN 12208	Class 9A	600 Pa

Security and Certification for Standard and Walk-On Flushglaze Units:

This product is designed with security as a priority. This product is tested to LPS2081 Issue 1:2015. It is approved by the Loss Prevention Certification Board (Cert/LPCB ref: 1347a) and Secured by Design:

Secure (Security Rating A)
The inner pane must be at least 8.8 mm PVB laminated glass (two 4 mm thick panes separated by an 0.8 mm thick PVB interlayer).

Secure+ (Security Rating B)
The inner pane must be at least 9.5 mm ionomer laminated glass (two 4 mm thick panes separated by a 1.5 mm thick ionomer interlayer).

Security and Certification for Fire-Rated Flushglaze Units:

This product has been tested and certified for 30 minutes integrity and 30 minutes insulation. Tests were by Building Research Establishment (BRE) Watford (13 Nov 2007) and approved by International Fire Consultants. The BRE test report is number 239658 and the field of application report is number IFCA/08008.

Security and Certification for All Flushglaze Units:

This product has been independently performance tested by the British Board of Agrément (certificate number 12/4895). To achieve certification, it underwent a rigorous testing regime that included weathertightness, security, thermal performance, structural integrity and durability of paints and sealants.

Optional Extras:

The following optional extras are available for this standard product at additional cost:

Easy Clean Coating: A coating applied to the external face of the glass that facilitates water run-off. Helps the glass stay cleaner for longer and makes cleaning easier.

Special Colour: This product has a single colour as standard. This can be swapped for a special colour.

Upstand Top Trim: Cover designed to mask the top of upstands which may be visible through glass when viewed from above. Includes detail to recess standard plasterboard.

Wall Abutments: The product can be fixed and weathered to a wall rather than an upstand on up to three sides. This option is not available on the Fire-Rated Flushglaze.

EPDM: A flexible membrane to provide additional waterproofing between the upstand and the product. This option is only available for the Walk-On Flushglaze.

A suite of sales drawings is available.
Bespoke options may be available upon request but may incur additional design fees – contact your technical sales advisor for more information.

GLAZINGVISION
www.glazingvision.co.uk
+44 (0)1379 658300
technicalsales@glazingvision.co.uk

Specification

SureSet
Permeable Paving
Bound with excellence since 1997

Residential - permeable base (SuDS Compliant)

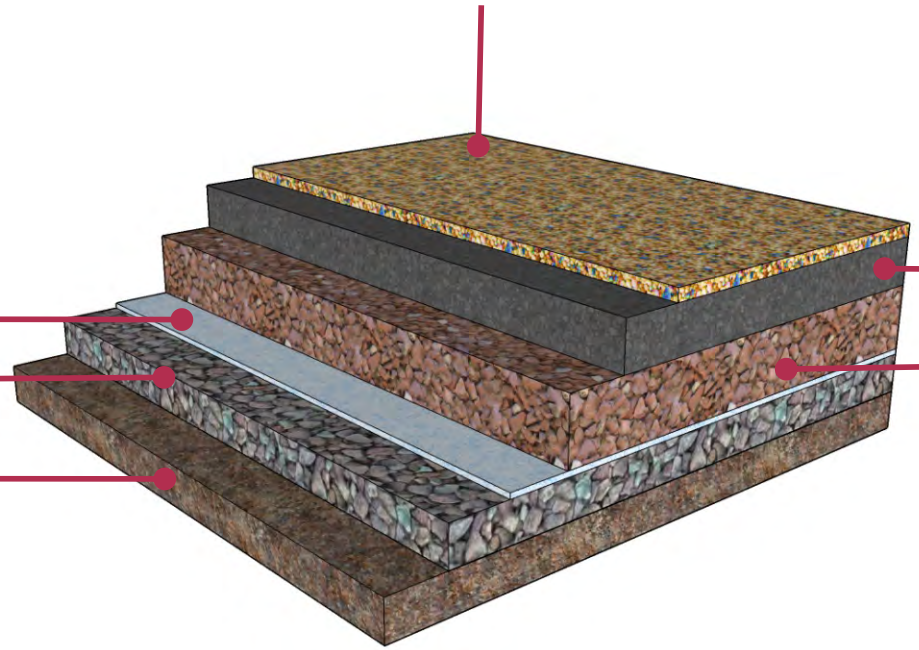
Fully permeable build up above membrane

SureSet
An aggregate size of **3mm** requires a standard depth of **12mm**
An aggregate size of **6mm** requires a standard depth of **16mm**
An aggregate size of **10mm** requires a standard depth of **30mm**
Fine grit is lightly cast onto an uncured surface

Membrane
An impermeable membrane to convey water to retention/detention/storage systems etc
OR
A geo-textile separation membrane to allow infiltration directly into sub-grade and to prevent upward migration of fine soil particles may be required.

Capping layer/Improvement, (if required).
In one or more layers. (please see notes on reverse)

Sub-grade
Top soil stripped back until organic and vegetative material has been removed.



Asphalt Binder Course
Laid by others in well compacted layers.
A 70mm minimum depth of maximum size AC 10 open graded asphalt.
Max 100/150 pen to BS EN13108-1:2006 (Bituminous Macadam) or (recommended BBA approved polymer modified binder).

Sub-base
Laid by others in well compacted layers.
A 100mm minimum depth of well compacted Type 3 granular sub-base to SHW clause 805 or 4/40mm, 4/20mm graded crushed concrete aggregate to BS EN12620 or locally available secondary or recycled aggregates which comply with the above specification blinded with 2/6.3mm graded crushed concrete aggregate to BS EN12620.

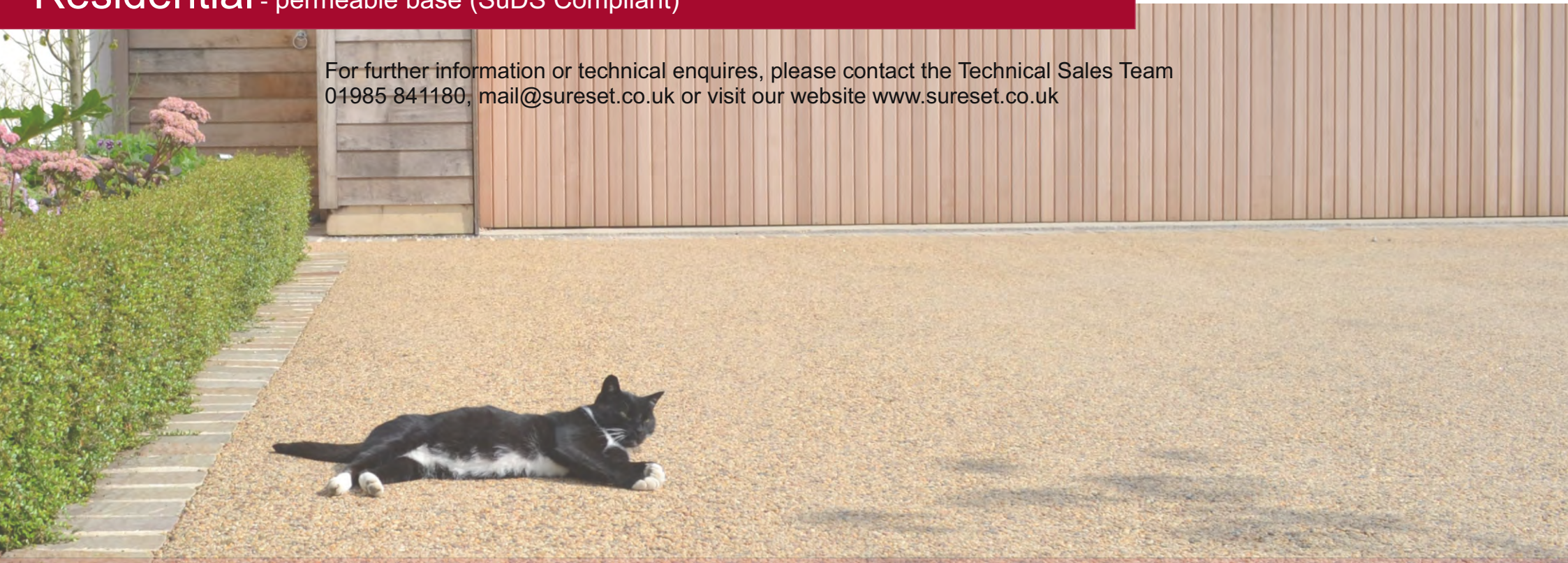
Suitable for
Pathways, Patios And Pool Surrounds

Please refer to specification guidance notes on reverse side.

Specification

SureSet
Permeable Paving
Bound with excellence since 1997

Residential - permeable base (SuDS Compliant)



For further information or technical enquires, please contact the Technical Sales Team
01985 841180, mail@sureset.co.uk or visit our website www.sureset.co.uk

Notes

- **SureSet can be laid onto existing sound asphalt surface of suitable construction for the traffic expected.**
- **Areas that may be trafficked by heavy vehicles should have structural layers designed according to Highways Agency requirements.**
- **The maximum deviation of the binder course should not exceed 3mm under a 1 metre straight edge.**
- **The thickness of the sub-base layer required is dependent on sub-grade soil conditions and expected loading.**
- **If plastic or silty sub-grade is present (CBR <2%) then a granular capping layer may be necessary.**
- **Any sub-base should be laid in a damp condition and compacted using multiple passes of a vibrating plate compactor or suitably sized vibratory roller.**

For further information on any of the above please contact SureSet Technical Sales on 01985 841180

This specification is based on normal good practice for flexible surfacing and does not absolve the specifier from designing a construction suitable for the expected traffic and ground conditions pertaining on a given site.