Fibre cement slates
Fibre cement slates

The appearance of the slated roof has been part of the built environment since time immemorial. As well as adorning some of the nation’s most important historic buildings and being a staple of vernacular architecture in many parts of the UK, slated roofs are used increasingly in design-led projects for the commercial, public, leisure and retail sectors.

Introduction
Marley Eternit fibre cement slates provide the charm of a natural slate roof with all the economical, functional and environmentally friendly attributes of modern slate technology.

Quality and sustainability
An A+ rating (the lowest environmental impact) in the Building Research Establishment’s Green Guide to Specification can be achieved using Marley Eternit’s fibre cement slates, concrete and clay tiles.

Marley Eternit operate a Quality System to BS EN ISO 9001 and comply with the Environmental Standard BS EN ISO 14001 (independently assessed by BSI), Health and Safety Standard OHSAS 18001 and are also certified with a ‘Very Good’ rating to BES 6001: Responsible Sourcing.
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Rivendale Blue-Black, Bishops Grosseteste University, Lincoln
Why choose Marley Eternit slates?
01  BES 6001 ‘Very Good’

02  A+ rated in the BRE Green Guide*

03  Can be used for both roof and facade

04  15° low pitch options available

05  Full range of fittings and accessories

06  Low carbon footprint of 13 CO$_2$e/m$^2$

07  Shapes and colours available

* Element ref: 812410008
Cwmaman Infant School case study

“Cwmaman Infant School lies in the heart of the valley community and the aesthetics of the school building are integral to the architectural heritage of the area. We chose Rivendale fibre cement slates to remain in keeping with the original design and surrounding buildings, whilst still maintaining a cost-effective alternative to natural slate.”

Kerry Chinnock, Building Surveyor, Rhondda Cynon Taf Council

Project information

<table>
<thead>
<tr>
<th>Location</th>
<th>Aberdare, Wales</th>
</tr>
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<tbody>
<tr>
<td>Application</td>
<td>Education</td>
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<tr>
<td>Product</td>
<td>Rivendale fibre cement slates</td>
</tr>
<tr>
<td>Specifier</td>
<td>Rhondda Cynon Taf Council</td>
</tr>
</tbody>
</table>

Rhondda Cynon Taf Council has chosen Marley Eternit Rivendale fibre cement slates for an authentic, beautiful slate roof finish for a school built in the early 1900s near Aberdare in Wales.

As a Victorian building, Cwmaman infant school’s slate roof had reached the end of its economic lifespan and was starting to leak. It was such a large roof that it would not have been possible to replace it during one single summer holiday period so Rhondda Cynon Taf Council decided to tender the project in two separate phases so as to ensure there was minimum disruption to the school’s function.

The council decided to specify Marley Eternit Rivendale fibre cement slates in blue black for the roof following their successful use on a similar project at Rhigos primary school, the previous year.
Knock Rushen
case study

“We were looking for a cost-effective product that seamlessly blended in with the local environment. Houses in Castletown are predominantly finished with natural slate roofs but we were confident that fibre cement would enable us to create a finish that would be sympathetic to the local surroundings.”

Paul Brew, Hartford Homes

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<td>Rivendale fibre cement slates</td>
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<tr>
<td>Specifier:</td>
<td>Hartford Homes</td>
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The site of Knock Rushen in Castletown had previously been subject to a number of unsuccessful planning applications. High quality products along with aesthetically pleasing designs were demanded by planning officers in an effort to mirror the local character of the town. The successful property development company therefore needed to carefully select products that would complement the beautiful surrounding coastal countryside.

After more than a decade of thought, design and planning, a unique collection of 45 luxury homes, made up of three, four and five bedroom designs, all of which have been finished with Marley Eternit’s Rivendale fibre cement slates in blue/black, was completed by developers, Hartford Homes.
Oaklands Village
case study

“It was important to ensure the slates visually met our criteria, as we were looking to specify a product with a very thin leading edge. We wanted to create a crisp roof line where the slates could also be used on a curved plan form. Natural slate proved to be cost prohibitive, so Rivendale fibre cement slate was specified as the ideal solution; it facilitates flexible design whilst offering strong environmental credentials”

Sandeep Magar, Architect Associate, Glancy Nicholls

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<tr>
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</tr>
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<td>Application:</td>
</tr>
<tr>
<td>Product:</td>
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<tr>
<td>Specifier:</td>
</tr>
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</table>

Rivendale fibre cement slates were specified for Oakland Village in South Derbyshire, a £20 million state of the art care community and recent winner of the best social housing project at LABC’s East Midlands Building Excellence Awards.

Sandeep Magar, architect associate at Glancy Nicholls, comments: “Oakland Village was conceived to dispel the stereotypical notion of an ‘old people’s home’. It was important for this project to have a contemporary design in order to accommodate the future provision of elderly care within the county, whilst at the same time ensuring quality materials were utilised. Marley Eternit’s Rivendale fibre cement slate enabled us to achieve the desired aesthetic.”

“Due to the topography of the site, the scale of the development was designed to be low profile in order to give the impression of individual houses, no more than two storeys in height.”
Tally Ho Police Training College

case study

“A combination of Birkdale’s colour, edge finish, modular scale size and design flexibility supported our design vision to use a traditional material in a contemporary and unusual manner.”

Rob Martin, Architect at Nichol Thomas

Project information

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<thead>
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<th>Birmingham</th>
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<td>Application</td>
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<td>Product</td>
<td>Birkdale fibre cement slates</td>
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<td>Nichol Thomas</td>
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<tr>
<td>Contractor</td>
<td>Dent and Partners</td>
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Marley Eternit’s Birkdale fibre cement slate was chosen as the perfect answer to fulfil part of a complex and challenging rainscreen design.

The new single storey training centre, which will be used by the West Midlands police force, consists of a fully grassed roof with ‘basket weave’ Birkdale slates used as a form of a raked rainscreen cladding to elevate the building.

Architect Rob Martin: “The fact that the building sits in a greenfield site meant that the choice of materials was critical in enabling the scheme to appropriately respond to its context. We had to find a solution which would also respond to the surrounding urban environment and would naturally ‘bed’ into the landscape. The familiarity of the traditional slate look of the tile helps the building settle well into its surrounding urban environment whilst the green tile and the use of the zoomorphic basket weave creates a softer ‘naturalistic’ feel which we felt lent itself to the grassy site in which it lays. The naturalisation of the building is completed with the introduction of the grass roof which due to its sunken position can be visible from the nearby roadside.”
### Rivendale fibre cement slates

#### Sustainability

<table>
<thead>
<tr>
<th>Green guide rating</th>
<th>A+ (Element ref: 812410008)</th>
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<tbody>
<tr>
<td>BES 6001</td>
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<td>Credit uplift available with EPD</td>
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</tr>
<tr>
<td>Embodied carbon</td>
<td>Low carbon footprint of 13 CO₂e/m²</td>
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#### Technical data*

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<thead>
<tr>
<th>Size of slate</th>
<th>600mm x 300mm</th>
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</thead>
<tbody>
<tr>
<td>Minimum pitch**</td>
<td>Moderate exposure 22.5° (100mm lap) 20° (110mm lap)</td>
</tr>
<tr>
<td></td>
<td>Severe exposure 25° (100mm lap) 22.5° (110mm lap)</td>
</tr>
<tr>
<td>Maximum pitch</td>
<td>90°</td>
</tr>
<tr>
<td>Typical laps</td>
<td>100, 110mm</td>
</tr>
<tr>
<td>Maximum gauge</td>
<td>245-250mm</td>
</tr>
<tr>
<td>Slate thickness</td>
<td>4mm</td>
</tr>
<tr>
<td>Covering capacity</td>
<td>13.4 slates/m² at 100mm lap 13.6 slates/m² at 110mm lap</td>
</tr>
<tr>
<td>Weight of slating</td>
<td>20.4 kg/m² (0.20 kN/m²) at 100mm lap 20.9 kg/m² (0.20 kN/m²) at 110mm lap</td>
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<tr>
<td>Battens required (net)</td>
<td>4.00 lin.m/m² at 100mm lap 4.08 lin.m/m² at 110mm lap</td>
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<tr>
<td>Battens size recommended</td>
<td>38 x 25mm for rafters/supports not exceeding 450mm centres 50 x 25mm for rafters/supports not exceeding 600mm centres</td>
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<tr>
<td>Fixings</td>
<td>Slate nails (30 x 2.65mm) Copper disc rivets (19mm dia. x 2mm stem)</td>
</tr>
<tr>
<td>Fittings screws</td>
<td>14 gauge self sealing</td>
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<tr>
<td>Authority</td>
<td>BS EN 492</td>
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</table>

*Marley Eternit fibre cement slates meet the strength requirement of BS EN 492, achieving an average bending movement greater than 50 NM/M (Class B). The slates also have a minimum density of 1700 kg/m³ and a nominal thickness of 4mm.

**The minimum recommended pitch and lap may be influenced by special circumstances, please contact the Technical Advisory Service.
A finely detailed surface and dressed edges that together reproduce the attractive appearance of natural slate.

> Tilefix  
marleyeternit.co.uk/tilefix

> CAD  
marleyeternit.co.uk/cad

> NBS specs  
marleyeternit.co.uk/specrite

> Fixing guide  
marleyeternit.co.uk/resources
A smooth surface and dressed edges offer a traditional and pleasing look.

> Tilefix  
marleyeternit.co.uk/tilefix

> CAD  
marleyeternit.co.uk/cad

> NBS specs  
marleyeternit.co.uk/specrite

> Fixing guide  
marleyeternit.co.uk/resources
## Birkdale fibre cement slates

**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 CO₂e/m²

**Colour availability**

* Made to order

### Technical data*

<table>
<thead>
<tr>
<th>Fixing method</th>
<th>Nail and rivet**</th>
<th>Slate hooks</th>
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<td>15° (150mm lap)</td>
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<td>Severe exposure</td>
<td>25° (100mm lap)</td>
<td>17.5° (150mm lap)</td>
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<tr>
<td></td>
<td>22.5° (110mm lap)</td>
<td>22.5° (110mm lap)</td>
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<tr>
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<tr>
<td>Typical laps</td>
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<tr>
<td>Maximum gauge</td>
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<td>4mm</td>
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<tr>
<td>Weight of slating (approx.)</td>
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<td>22.8 kg/m² (at 150mm lap)</td>
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<td></td>
<td>(at 100mm lap)</td>
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<td></td>
<td>20.9 kg/m² (0.20 kN/m²)</td>
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<td></td>
<td>(at 110mm lap)</td>
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<td>4.08 (net lin.m/m²) (at 150mm lap)</td>
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<tr>
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<td>50 x 25mm for rafters/supports not exceeding 600mm centres</td>
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<tr>
<td>Fixings</td>
<td>Slate nails (30 x 2.65mm) Copper disc rivets (19mm dia. x 2mm stem)</td>
<td>Slate hooks (150mm) Slate nails for local areas of roof (30 x 2.65mm) Copper disc rivets for local areas of roof (19mm dia. x 2mm stem)</td>
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<table>
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<th>Specification</th>
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<td>22.5° (100mm lap)</td>
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<td><em>Severe exposure</em></td>
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<td>25° (100mm lap)</td>
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<td>22.5° (110mm lap)</td>
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<tr>
<td>Typical laps</td>
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<td>Maximum gauge</td>
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<tr>
<td>Slate thickness</td>
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<td>Covering capacity (net)</td>
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<td></td>
<td>13.6 slates/m² at 110mm lap</td>
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<tr>
<td>Battens required (net)</td>
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<tr>
<td>Fixings</td>
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<td>Copper disc rivets (19mm dia. x 2mm stem)</td>
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<tr>
<td>Fittings screws</td>
<td>14 gauge self sealing</td>
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** The minimum recommended pitch and lap may be influenced by special circumstances, please contact the Technical Advisory Service.
A detailed surface and square edge closely resembles natural slate but is easier and faster to install.

> Tilefix  
marleyeternit.co.uk/tilefix

> CAD  
marleyeternit.co.uk/cad

> NBS specs  
marleyeternit.co.uk/specrite

> Fixing guide  
marleyeternit.co.uk/resources
A smooth surface and square cut edges give a low profile slate at an economical price which is suited to complex roof geometries.

> Tilefix
marleyeternit.co.uk/tilefix

> CAD
marleyeternit.co.uk/cad

> NBS specs
marleyeternit.co.uk/specrite

> Fixing guide
marleyeternit.co.uk/resources
Thrutone
fibre cement slates

Sustainability
Green guide rating A+(Element ref: 812410008)
BES 6001 Very good – can achieve 3 credits
Embodied carbon Low carbon footprint of 13 CO₂/m²

Technical data*

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<td>22.5° (100mm lap)</td>
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<td>25° (100mm lap)</td>
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<td>90°</td>
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<tr>
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<td>100mm</td>
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Colour availability

- Blue-Black
- Russet*
- Terracotta*
- Stone Green*
- Heather*
- Turf Brown*

* Made to order

Shapes availability

- Bullnose
- Chamfered
- Scalloped

For advice, literature and samples Tel 01283 722588 or visit marleyeternit.co.uk

Watch a quick video on how to fit low pitch Thrutone slates at marleyeternit.co.uk/thrutone
Vertigo

Contemporary or traditional, our NEW Vertigo range follows the lines of your creativity and brings a new solution to rainscreen cladding.
The small unit size perfectly follows all shapes like a second skin, enabling continuity between roof and facade to be achieved.

For more information visit marleyeternit.co.uk/vertigo
**Fittings and accessories**

**Marley Eternit ventilation systems**
To assist the designer in meeting the requirements of the Building Regulations, Marley Eternit has developed a range of ventilation accessories that combine discreet and aesthetic solutions with the highly efficient removal of moisture-laden air and gases. This comprehensive range is designed to ventilate roof voids with terminals for the ridge and roof, with connection to mechanical extract systems and soil vent pipes, allowing easy provision of precise amounts of free airspace.

**Available systems:** Universal eaves ventilation systems (10 and 25mm)*, Universal RidgeFast®, Universal HipFast®, Universal fibre cement ridge roll, Ventilated dry ridge and mono ridge, Ridge vent terminals, In-line vents.

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### Fibre cement fittings

<table>
<thead>
<tr>
<th>Description</th>
<th>Duo ridge**</th>
<th>Stop end for duo pitch ridge**</th>
<th>Mono pitch ridge**</th>
<th>Stop end for mono pitch ridge**</th>
<th>In-line ridge ventilator plus extension sleeve*</th>
</tr>
</thead>
</table>

**Marley Eternit dry fix systems**
To improve the speed and economy of roof construction, a choice of high performance, maintenance-free dry fix systems are offered to suit ridge, verge, hip and valley details providing easy to fix alternatives to traditional mortar bedding. When correctly installed, they are designed to satisfy the requirements of BS 5534 ‘Code of practice for slating and tiling’ with respect to the mechanical fixing of roof fittings to resist wind uplift and the provision of a weathertight roof.

**Available systems:** Universal RidgeFast®, Universal HipFast®, Dry ridge and mono ridge, GRP interlocking slate dry valley system, Slate verge trim.

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### Relative pitches of fibre cement ridge and hip cappings

<table>
<thead>
<tr>
<th>Design pitch main roof</th>
<th>15°</th>
<th>20°</th>
<th>22.5°</th>
<th>25°</th>
<th>27.5°</th>
<th>30°</th>
<th>35°</th>
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<th>50°</th>
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<tbody>
<tr>
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<td>***</td>
<td>20°</td>
<td>25°</td>
<td>25°</td>
<td>30°</td>
<td>30°</td>
<td>35°</td>
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<td>Effective pitch at hip</td>
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<td>14°</td>
<td>15°</td>
<td>17.5°</td>
<td>19°</td>
<td>20°</td>
<td>24°</td>
<td>27°</td>
<td>30°</td>
<td>33°</td>
<td>35°</td>
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<tr>
<td>Recommended pitch of duo pitch hip cappings</td>
<td>***</td>
<td>15°</td>
<td>15°</td>
<td>20°</td>
<td>20°</td>
<td>20°</td>
<td>25°</td>
<td>30°</td>
<td>30°</td>
<td>35°</td>
<td>35°</td>
</tr>
</tbody>
</table>

The above table assumes that pitches on each side are identical and that slopes intersect at right angles on plan.

*** Please contact the Technical Advisory Service

* Universal systems are designed to be compatible with tiles and slates used in the roofing industry. ** 6m ventilated ridge roll is available to provide continuous ventilation.  † Made to order. ‡ Maximum pitch may vary depending on product and system used. Please contact the Technical Advisory Service for more information.  † Angle ridge wing length will vary depending on ridge angle.
Concrete fittings

Available in a range of colours. Crested ridges and finials are available in Smooth Grey, Smooth Brown, Old English Dark Red, Mosborough Red. All other colours made to order.

<table>
<thead>
<tr>
<th>Description</th>
<th>Mono ridge</th>
<th>Capped angular ridge</th>
<th>Angular ridge</th>
<th>Angular ridge hip end</th>
<th>Angular ridge stop end</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitch range</td>
<td>30-45°</td>
<td>30-50°</td>
<td>30-50°</td>
<td>30-50°</td>
<td>30-50°</td>
</tr>
</tbody>
</table>

Clay fittings

Available in a range of colours and angles. Security fixing is available for all ridges.

For details of the full range, please contact the Technical Advisory Service.
Properties and performance

Features of fibre cement slates

- Low pitch options down to 15°
- Can achieve an A+ rating in the BRE Green Guide
- Low carbon footprint of 13 CO₂e/m²
- BES 6001 certified
- Proven in application to last in excess of 60 years
- Clean, low energy production process
- Fully recyclable

Authority

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 ‘Fibre cement slates and fittings – Product specification and test methods’.

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.

The range of Marley Eternit blue/black fibre cement slates have been tested by Birmingham City Council Laboratories and approved for use on Birmingham City Council projects.

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”.

Anatomy of Rivendale fibre cement slate

- Clear wax coating on underside
- Nail hole
- UV-resistant acrylic coating
- Dressed or square edges
- Flat or riven surface
- Tail rivet hole

Fibre cement slate coatings

- UV-resistant acrylic coating
- Fibre cement base sheet
- Primer coating
- Clear wax coating
- Secondary coating (cement/pigment/iron oxide)
**Carbon footprinting**
Fibre cement slates can have a carbon footprint figure of as low as 13 CO₂e/m².

**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.

**Composition and manufacture**
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**
The slates also have a minimum apparent density of 1700kg/m³ when tested to BS EN 492 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**
Fibre cement slates meet the strength requirements of BS EN 492, achieving an average bending moment greater than 50Nm/m (Class B).

**Fire resistance**
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.

**Environmental effects**

**Thermal**
The thermal resistance (R) of 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 tiles or 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 Service.

**Electricity**
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**
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’.

**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. Fixing specifications can also be completed on line at www.marleyeternit.co.uk/tilefix

Consideration should be given to sealing any cut edges to prevent potential efflorescence showing. Please contact the Technical Advisory Service for more details.
Design details

Universal 25mm eaves ventilation system
Suitable for fibre cement slates.
- eaves ventilation to satisfy 25mm conditions
- eaves to ridge ventilation for pitches of 15°-50°
- continuous rafter roll compresses insulation to allow free air passage (use two rolls to compress deep insulation)
- strip ventilator has discreet ventilation grille and is nailed to fascia or timber fillet
- suitable with or without soffit board
- mechanically fix all slates at eaves

Slate verge trim
Suitable for fibre cement slates.
- suitable for dry verges with or without bargeboard
- not suitable for raking verges
- when used with timber sarking, ensure outer structure is brought up to underside of tiling battens
- extend battens to edge of bargeboard or brickwork
Universal HipFast system
Suitable for fibre cement slates.

- 50° maximum rafter pitch
- provides ventilation when used with a vapour permeable underlay, or 5mm gap in impermeable underlay
- use one or two thicknesses of 50mm x 25mm batten to fit batten brackets
- use block end hip tile at eaves
- mechanically fixes each hip tile via hip unions and clamps
- complete hip at ridge with soaker flashing

GRP slate dry valley with fibre cement slates
Suitable for all double-lap fibre cement slates.

- minimum rafter pitch 22.5°, maximum 45°
- suitable for all plan angles and where the pitch either side of the valley varies by a maximum of 15°
- provide continuous support for valley trough using 19mm ply timber lay boards inset between rafters or 6mm continuous ply boards laid over rafters
- form 125mm minimum gap between raking cut slates (for pitches below 35° or valley lengths over 5m contact the Technical Advisory Service)
- use tail rivets and nails to secure rafting cut fibre cement slates
- complete top of valley with a lead saddle
Design details

Universal Ridge Roll for use with fibre cement slates and ridges
Suitable for all fibre cement slates with duo pitch ridges (15°, 20°, 25°, 30°, 35°, 40°, 45°, 50°, 55° and 60°).

- provides 5,000mm² free air space
- ensure gap is provided in roof underlay to vent roof void
- cut top two courses of slates as necessary from standard slates
- site drill two new holes for head nailing
- site drill ridge units and stop ends with 8mm dia. fixing holes
- mechanically fix using 64 x 6.35mm self-sealing woodscrews

Ventilating dry ridge
Suitable for fibre cement slates (using Modern and Segmental concrete ridges).

- maximum rafter pitch 45° (55° with steep pitch ridge batten)
- provides 5,000mm² free vent area at ridge apex
- ensure gap is provided in roof underlay to vent roof void
- fix all top course slates
- mechanically fix each ridge tile via ridge unions
- complete ridge with dry ridge end cap or block end tile
Abutment ventilation system
Suitable for fibre cement slates.
- maximum rafter pitch 45° (55° using steep pitch batten section)
- provides 5,000mm²/lin.m ventilation
- ensure air passage from roof void is not obstructed
- mechanically fix all top course slates
- use minimum 1.5m length of lead flashing with 150mm side laps

In-line fibre cement slate vent terminal
Suitable for all fibre cement slates.
- locate clear of rafters
- use soaker tray to weather hole in underlay for spigot
- locate at 2.0m centres for 5,000mm²/lin.m ventilation and 1.0m centres for 10,000mm²/lin.m ventilation
- use slate vent adaptor and flexible pipe for connection to 110mm dia. pipework as termination to mechanical extract or soil vent pipe
- do not use as exhaust for hot flue gases
- when used as extract for soil vent pipes, keep minimum 900mm above any opening into building within 3m
Change of pitch with fibre cement slates
Suitable for all fibre cement slates.
• detail lower edge of upper slope as at eaves
• provide timber fillet for lead flashing to dress over top course slates
• maintain continuous lap of underlay at junction of two pitches
• allow minimum 150mm lap of Code 4 lead flashing onto top course of slates
• fix edge of flashing with copper clips at 300-500mm centres

Mansard with fibre cement slates
Suitable for all fibre cement slates.
• detail lower edge of upper slope as at eaves
• ensure upper eaves course overhangs lower slope by 50mm
• provide timber fillet for lead flashing
• use Code 4 lead cover flashing dressed 150mm minimum onto top course slates
• fix edge of flashing with copper clips at 300mm to 500mm centres
**Hook fixing with Birkdale slates for pitches down to 15°**

- All slates should be fixed in accordance with BS 5534 and BS 8000-6
- Slates should be laid broken bond using slate-and-a-half width slates in alternate courses formed from double width slates at verges, hips, valleys and abutments.
- Allow a 5mm gap between adjacent slates for tail of hook
- Each full size slate on this course is now fixed with a 150mm long spiked hook driven into the batten between the edges of the two slates below

For further details request a copy of our fibre cement slates fixing guide at: www.marleyeternit.co.uk/slates
Technical toolkit

tools and assets that make design and specification as straightforward as possible

> NBS
A tool to produce instant NBS clauses that meet the recommendations of British Standards and Codes of Practice: marleyeternit.co.uk/specrite

> Dry fix selector
Easy-to-use and comprehensive system finder delivering results from choice of pitch, material type or specific tile type: marleyeternit.co.uk/roofing

> CAD details
Access to over 2,000 CAD drawings illustrating how specific tile and slate details can be formed: marleyeternit.co.uk/cad

> Tilefix
Tool to create fixing specifications based on the geographical location and building dimensions of specific roofing projects: marleyeternit.co.uk/tilefix

> CPDs
A range of Continuous Professional Development roofing seminars accredited by the RIBA CPD Certification Service. For more information or to make a booking: marleyeternit.co.uk/cpd

> Samples
Samples of all fibre cement slates, clay and concrete tiles are available at: marleyeternit.co.uk/samples

> BIM
BIM Space is a set of free to download Building Information Modelling (BIM) objects that provide a standard range of build ups for our fibre cement roof slates, clay plain tiles and facades (EQUITONE, Operal and Cedral): marleyeternit.co.uk/bim

> Fixing instructions & literature
Comprehensive sitework, fixing and installation literature and videos: marleyeternit.co.uk/resources
All current product and technical literature can be downloaded: marleyeternit.co.uk/downloads
Services

Getting our knowledge to you and your project smoothly and efficiently

Customer services

Marley Eternit is committed to providing outstanding customer care and is staffed by experienced personnel:
Tel 01283 722588  E-mail info@marleyeternit.co.uk
To find your nearest stockist, please visit:
www.marleyeternit.co.uk/resources

Technical Advisory Service

Specifiers require prompt, knowledgeable and detailed responses to a vast range of enquiries covering everything from the embodied energy of a typical roof tile, to the different ventilation options available.

Our Technical Advisory Service is staffed by a qualified team with specialist knowledge not only of all Marley Eternit products, but also crucially, how those systems integrate with other roofing components and comply with Building Regulations, Health and Safety, environmental and other critical roofing criteria.
Tel 01283 722588  E-mail info@marleyeternit.co.uk
www.marleyeternit.co.uk

Sustainability and standards

Credits, credentials and clarity of information

BES 6001

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

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 Marley Eternit’s factories in the UK 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.