# CEDRAL







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& ENVIRONMENT



#### 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).



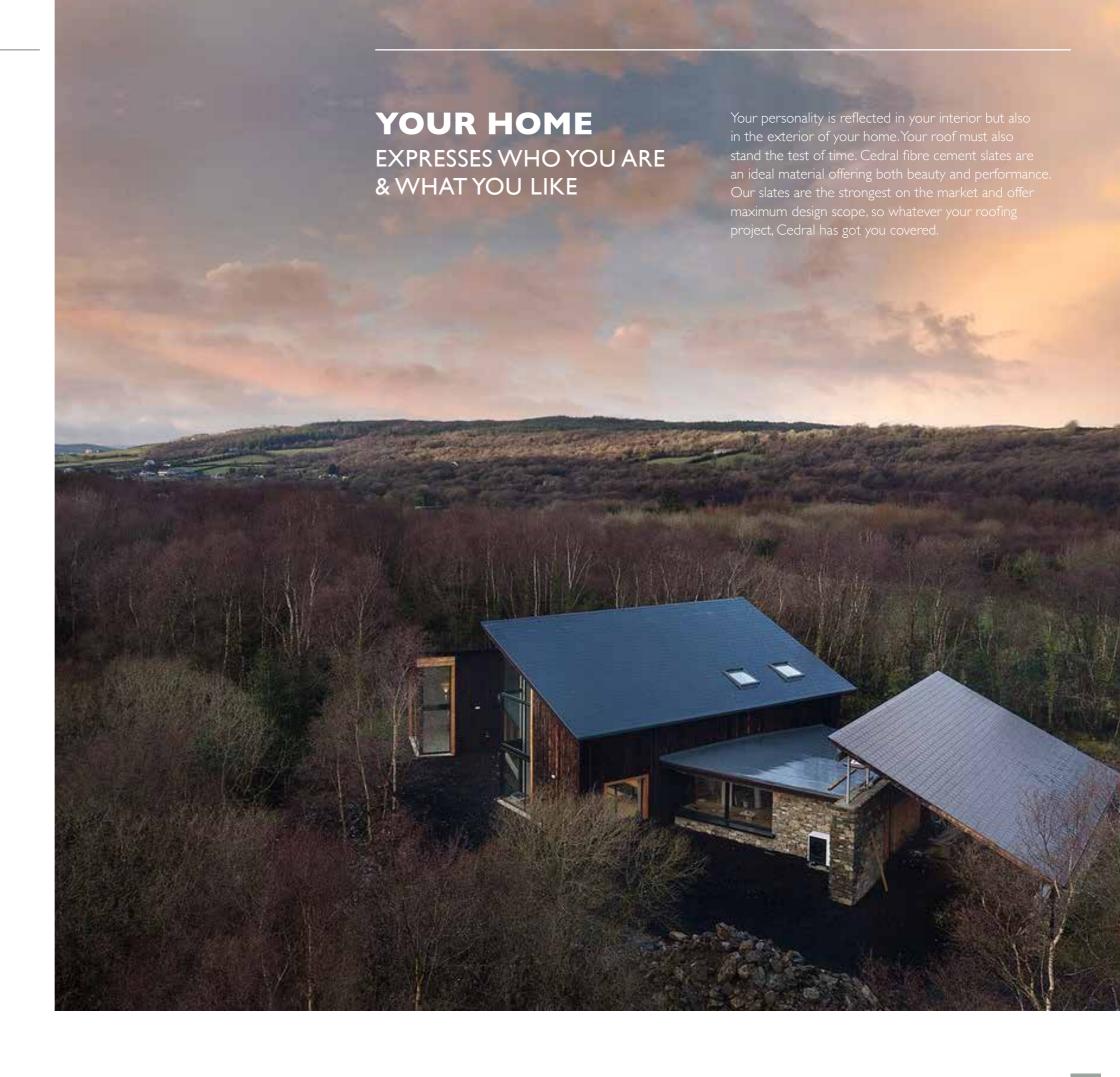
#### Sustainable

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

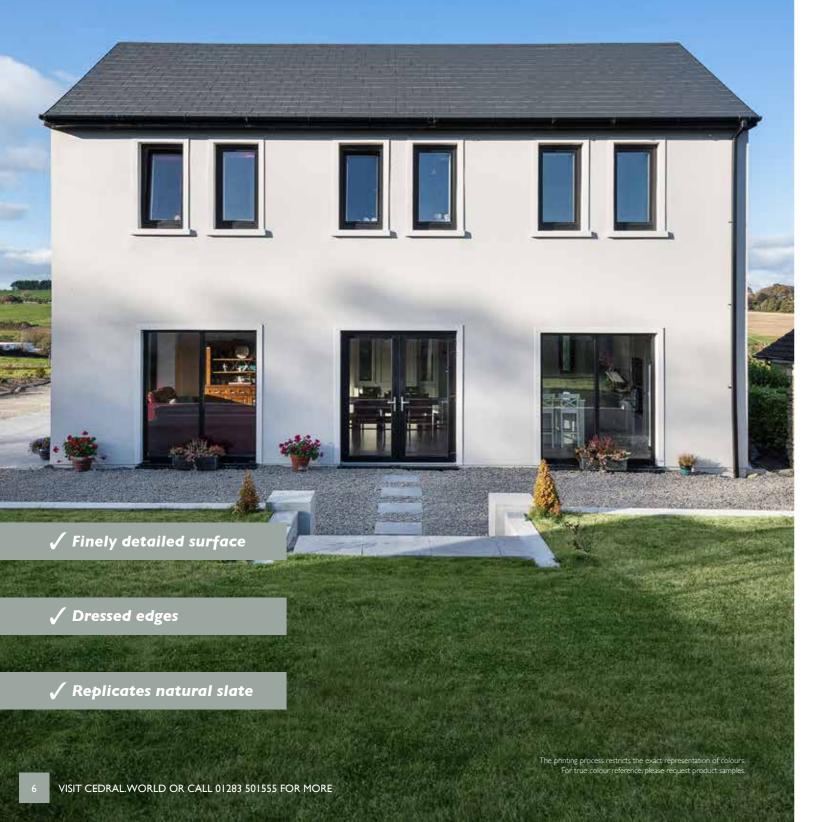
Our slates come in a range of beautiful colours, textures and shapes and can be installed in many different ways, meaning you can choose to fit in or stand out.



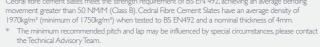
VISIT CEDRAL.WORLD OR CALL 01283 501555 FOR MORE

# 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.



Technical data	ı	
Fixing method	Nail and rivet	Slate hooks
Size of slate	600mm x 300mm	600mm × 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	I50mm
Maximum gauge	245-250mm	225mm
Slate thickness	4mm	4mm
Covering capacity (net)	13.4 slates/m² (100mm lap) 13.6 slates/m² (110mm lap)	14.8 slates/m² (150mm lap)
Weight of slating (approx.)	20.4 kg/m² (0.20 kN/m²) at 100mm lap 20.9 kg/m² (0.20 kN/m²) at 110mm lap	22.8 kg/m² at 150mm lap
Battens required (net)	4.00 lin.m/m² at 100mm lap 4.08 lin.m/m² at 110mm lap	4.45 lin.m/m² 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 × 2.65mm) Copper disc rivets (19mm dia. × 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 me	et the strength requirement of BS EN 492	2, achieving an average bending



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 <sub>2</sub> e/m <sup>2</sup>

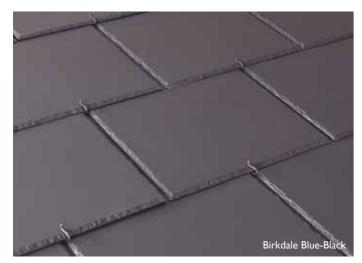






# **BIRKDALE** FIBRE CEMENT SLATES

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.





Technical data	1	
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/m² (100mm lap) 13.6 slates/m² (110mm lap)	14.8 slates/m² (150mm lap)
Weight of slating (approx.)	20.4 kg/m² (0.20 kN/m²) at 100mm lap 20.9 kg/m² (0.20 kN/m²) at 110mm lap	22.8 kg/m² at 150mm lap
Battens required (net)	4.00 lin.m/m² at 100mm lap 4.08 lin.m/m² at 110mm lap	4.45 lin.m/m² 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 libre cement sates meet the strength requirement to 18 EIN 474, achieving an average benoin movement greater than 50 NM/M (Class B). Cedral Fibre Cement States have an average density of 1970kg/m³ (minimum of 1750kg/m²) when tested to BS EN492 and a nominal thickness of 4mm.

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 <sub>2</sub> e/m <sup>2</sup>

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



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



C:f -l	600mm x 300mm	F00
Size of slate	600mm x 300mm	500mm × 250mm‡
Minimum pitch*  Moderate exposure	22.5° (100mm lap)	22.5° (100mm lap)
Proderate exposure	20° (110mm lap)	22.5 (100HHH IAP)
Severe exposure	25° (100mm lap) 22.5° (110mm lap)	25° (100mm lap)
Maximum pitch	90°	90°
Typical laps	100, 110mm	I00mm
Maximum gauge	245-250mm	200mm
Slate thickness	4mm	4mm
Covering capacity (net)	13.4 slates/m² at 100mm lap 13.6 slates/m² at 110mm lap	20.0 slates/m <sup>2</sup> at 100mm lap
Weight of slating (approx.)	20.4 kg/m² (0.20 kN/m²) at 100mm lap	21.3 kg/m² (0.21 kN/m²) at 100mm lap
	20.9 kg/m² (0.20 kN/m²) at 110mm lap	
Battens required (net)	4.00 lin.m/m² at 100mm lap 4.08 lin.m/m² at 110mm lap	5.00 lin.m/m <sup>2</sup> 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 × 2.65mm) Copper disc rivets (19mm dia. × 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

Cecia indire cerient sales meet une suergin requirement to be EN 472, ad newing all awerage design movement greater than 50 NM/M (Class B). Cedral Fibre Cement Slates have an average density of 1970kg/m³ (minimum of 1750kg/m²) 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

Low carbon footprint of 13 CO<sub>2</sub>e/m<sup>2</sup>









Chamfered<sup>†</sup>





## Other shapes









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
Turf Brown†



Stone Green†



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/m² at 100mm lap 13.6 slates/m² 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/m² at 100mm lap 4.08 lin.m/m² 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/m³ (minimum of 1750kg/m³) 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	

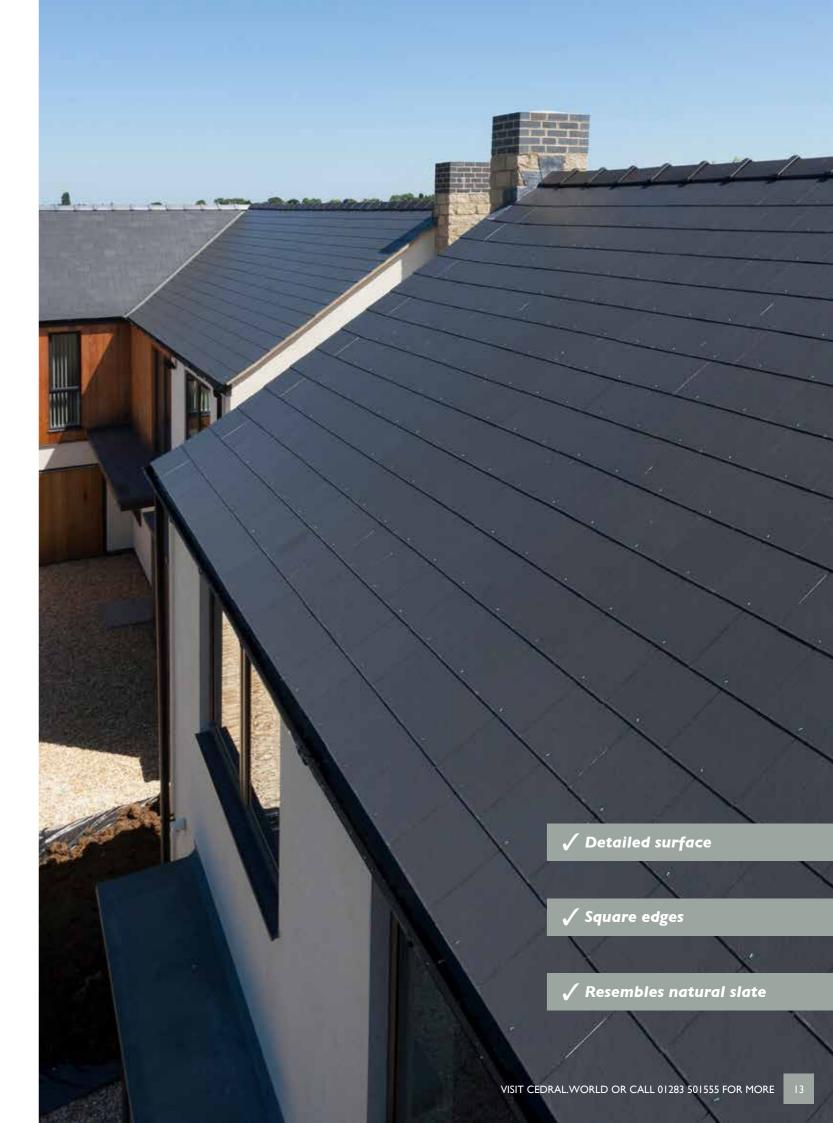
Green guide rating A+ (Element ref: 812410008)

BES 6001 Very good – can achieve 3 credits

Credit uplift available with EPD

Embodied carbon Low carbon footprint of 13 CO<sub>2</sub>e/m²

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





# CASE STUDIES









# PROPERTIES & PERFORMANCE

#### **Features of Cedral fibre cement slates**

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



Cedral fibre cement slates are manufactured in accordance with a quality

Management Systems requirements' for products manufactured to BS EN

requirements of BS 5534 'Code of practice for slating and tiling (including

Additionally, the manufacturing location operates an environmental

guidance for use' and Health and Safety Standard OHSAS 18001.

Standard for Responsible Sourcing of Construction Products.

as product type; The code ends with "NT".

**Carbon footprinting** 

492 'Cedral fibre cement slates and fittings – Product specification and test

Cedral fibre cement slates are also designed to meet the relevant performance

management system, registered with the BSI as meeting the requirements of

BS EN ISO 14001 'Environmental management systems – Specification with

Cedral fibre cement slates are also rated 'Very Good' to BES 6001 Framework

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 I4 20 CI 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

Cedral fibre cement slates can have a carbon footprint figure of as low as 13

management system registered by BSI to BS EN ISO 9001 'Quality

**Authority** 

**Batch coding** 

CO<sub>2</sub>e/m<sup>2</sup>.

methods'

#### 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 I 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  $0.01\, \text{Im}^2 \text{K/W}$ .

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**

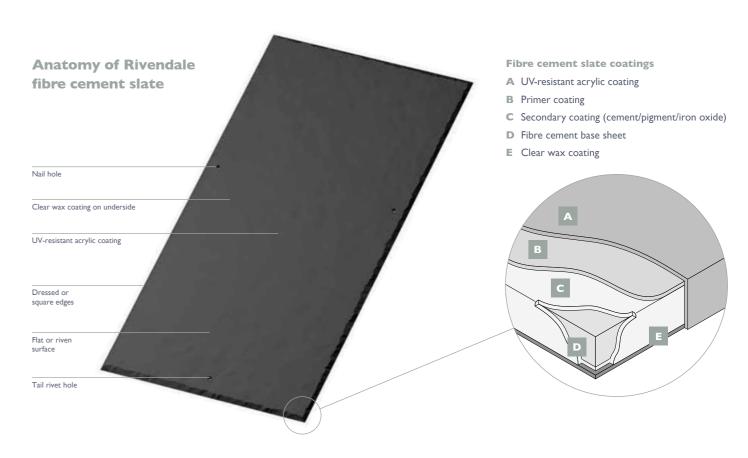
Not affected or degraded by birds, rodents or insects.

#### **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'.









VISIT CEDRAL.WORLD OR CALL 01283 501555 FOR MORE

# **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

## THE VERGE

Is the verge correctly

#### 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 600 I 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.

This publication is based on the latest data available at the time of printing. Due to product changes, improvements and other factors, the Company reserves the right to change or withdraw information contained herein without prior notice. For specific applications users should refer to the Technical Advisory Team and relevant Standards and Codes of Practice for guidance. The photography shown in the document should not necessarily be taken as recommendations of good practice. The printing process restricts the exact representation of colours. For true colour reference, please request product samples.

# CEDRAL











May 2020