CI/SfB | [47] | [NF2] |

September 2014

Forticreteroofing Redefining traditional products



Roofing Pocket Guide

A comprehensive range of products under one roof





Gemini® Sunrise Blend at Barratt Homes, Waters Edge, Stourport on Severn, Worcestershire.

Front cover

Gemini® Mixed Russet at David Wilson Homes, Biggleswade, Bedfordshire.

Contents

4	Roofing products that top the lot	Ne
5	Guarantee	- 1
6-7	Gemini®	1.14
8-9	Gemini® Traditional Sandfaced	iner la
10-11	Minislate®	
12-15	Hardrow [®] Slates	
16-17	Centurion [®] 10	
18-19	Low Pitch Roof Window System	
20-21	V2 [®]	
22-23	Senator®	
24-25	Plain Tiles	60.5
26-27	Standard Fittings	
28	Ornamental ridges	
29	Hardrow [®] Slates fittings	
30-34	Dry fix and ventilation systems	
35	Working Procedures, Safety & General Precautions	
36-37	Technical services	

nn

Roofing products that top the lot

Forticrete Roofing is a leading innovator in the design and production of concrete roof tiles and slates.

Each products is manufactured to the highest quality standards, to an ISO 9001 quality management system and in tile and slate manufacturing plants that are certified to ISO 14001, the international environmental standard.

All of our are products are able to fly the prestigious BS Kitemark and the company's commitment to creating products and processes that are friendly to the environment enables specific products to carry the ECOTILE or ECOSLATE trademarks.



Forticrete can demonstrate responsible sourcing for 100% of its products

As a supplier of construction products to the industry we are very aware of the impact our products have on people, the environment and the economy. Certification to BES 6001 enables our customers to source from us with even greater confidence.

The BES 6001 framework standard is an independent certification scheme which assesses responsible sourcing policies and practices throughout the supply chain of construction products. With one assessment covering raw material, its manufacture and delivery, its use, re-use and recyclability, the universal rating system enables architects, specifiers and construction professionals to meet sustainability targets more easily.

Under the BES 6001 Framework Standard, products are assessed by looking at existing quality, environmental, health and safety management systems together with other important criteria including:

- Global warming emissions
- Labour practice
- Social dimensions and impacts

Products are rated as Pass, Good, Very Good or Excellent depending on the number of optional points achieved. Requirements for demonstrating compliance with the Framework Standard fall within 3 categories. Since we work with external suppliers that already operate good management systems we were able to achieve an 'very good' rating in all our roof tile sites against the criteria.

Construction products certified against the BES 6001 standard are awarded different tiers and therefore points depending on the certification level



achieved. Forticrete provides products across the range of major building elements as outlined in the BREEAM manual.

Biodiversity

• Minimising raw material usage



Minislate® Slate Grey on Bowey Homes, Fulwell, Sunderland.

Guarantee

All Forticrete tiles and slates carry a product Integrity Guarantee from date of supply, subject to the company's normal terms. Forticrete Roofing Products policy is one of continuous improvement and the Company reserves the right to change specifications and designs at any time without notice.

Roof tiles and slates may become scuffed during transportation or installation. This does not affect the performance of the products and the appearance will improve with weathering in due course.

Where an exact colour match is critical, you are advised to view actual tile samples.

Hardrow® Slates Duets® Barley on a Barn Conversion at Nicholson's, The Park, North Aston, Nr. Deddington





Gemini®

Double cambered plain tile appeal at pitches down to 22.5°.

- Aesthetic appearance of a traditional plain tile when laid
- Only 16.3 tiles per m² (60 for plain tiles) 40% CO₂ saving in manufacture compared to concrete plain tiles
- 20% fixing labour savings in comparison to plain tiles
- 30% reduction in weight
- 42% timber savings on roof battens
- 6% timber savings on roof trusses
- Lays to lower pitches 22.5° (plain tiles 35°)
- Thin leading edge
- Hidden fixings including tile clip
- Range of dry fix fittings and ventilation products are available to satisfy NHBC requirements
- Kitemarked to BS EN 490:2011
- 60 year product integrity guarantee
- Registered design

Technical Data

Overall Length Hanging Length Overall Width Cover Width Mass (approx.)

Pitch range

Headlap Batten Spacing Batten Required Weight kg/m²

Pitch range

Headlap Batten Spacing **Batten Required** Tiles/m² Weight kg/m²

22.5° - 29.5° 80mm min 47 kg/m²

30° - 70° 75mm min 45 kg/m²

18.1 /m² 51 kg/m² 95mm max

95mm max



Scan the QR code with your smartphone for instant access

to our Gemini® products.

Batten Size Recommended (fixed to BS 5534:2003 A1:2010) 38 x 25mm for spans up to 450mm 50 x 25mm for spans 450mm - 600mm Nail Size 45mm x 3.35mm aluminium nail **Tile Designation** T-EN 490-IL-0-RF-316-/-/-243-2,8

The maximum rafter length should not exceed 10m without consulting the Technical Advisory Service.

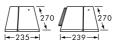
Forticrete recommend the use of positive ventilation in roof spaces in accordance with the Current British Standard BS 5250 - Control of Condensation in Buildings.



Gemini® Mixed Russet on 4 cottages in Ironbridge Gorge, Telford.



Gemini Tile



270

Left hand or right hand 3/4 Verge Tile



Tile and Half



Lo-Vent Tile lavailable as Air or Soil Vent Kit)



Tile Clip



Verge Clip



Colour range



Sunrise Blend (Pre-blended) Mixed Russet (Pre-blended)

	and share the second second second second
	states a subscription of the subscription of t
and the second se	A sum of some state of the second state of the
	and the second s
Sector Sector Sector Sector	A REAL PROPERTY AND A REAL
Autumn	Red



Jacobean (Made to order)

Brown





7



6

2.8 kg



Gemini[®] **Traditional Sandfaced**

With a subtle weathered finish, the award winning Ecotile® has just got better.

- Traditional sandfaced appearance
- Riven texture
- Thin uneven leading edge
- Only 17.2 to 18.1 tiles per m² (60 for plain tiles)
- Hidden tile fixings
- Range of Dry Fix systems are available to satisfy NHBC requirements
- Kitemarked to BS EN 490:2011
- 60 year Product Integrity Guarantee
- Less weight per m² than plain tiles
- 40% CO₂ saving in manufacture compared to concrete plain tiles

Technical Data

Overall Length Hanging Length Overall Width Cover Width Mass (approx.) 2.8 kg

Pitch range

Headlap Batten Spacing **Batten Required** Tiles/m²

Weight kg/m²

8

85mm min 95mm max

18.1 /m² 51 kg/m²

Batten Size Recommended (fixed to BS 5534:2003 A1:2010)		
	38 x 25mm for spans up to 450mm	
	50 x 25mm for spans 450mm - 600mm	
Nail Size	45mm x 3.35mm aluminium nail	
Tile Designation	T-EN 490-IL-0-RF-316-/-/-243-2,8	

30° - 70°

48 kg/m²

The maximum rafter length should not exceed 10m without consulting the Technical Advisory Service.

Forticrete recommend the use of positive ventilation in roof spaces in accordance with the Current British Standard BS 5250 - Control of Condensation in Buildings.



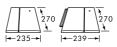
Scan the QR code with your smartphone for instant access to our Gemini® Traditional Sandfaced products.



Gemini® Traditional Sandfaced Mercia Blend on Belbroughton Developments, Wombourne, Staffs.

270

Gemini Tile



Left hand or right hand 3/4 Verge Tile







Lo-Vent Tile (available as Air or Soil Vent Kit)



Tile Clip



Verge Clip

Colour range



Ember Blend (Granular finish)



Mercia Blend (Granular finish)

Note: Mercia and Ember Blends are also available as Plain Tiles.

9



Minislate®

The aesthetic appeal of natural slate with the benefits of an interlocking concrete tile.

- 20 x 12 natural slate scale when laid
- Fibre-free composition
- Fixed as simply as conventional interlocking tiles
- Hidden fixings, including tile clip
- Range of Dry-Fix fittings and ventilation products

2.8 kg

22.5° - 29.5°

80mm min

- Kitemarked to BS EN 490:2011
- Product integrity guarantee

Technical Data Overall Length Hanging Length Overall Width

Cover Width Mass (approx.)

Pitch range

Batten Spacing Batten Required

Headlap

Tiles/m²

Tiles/m²

Weight kg/m²

Pitch range Headlap

Batten Spacing

Batten Required

Weight kg/m²



Scan the QR code with your smartphone for instant access to our Minislate® products.



Minislate® Slate Grey on Amberstone Developments, Roundhay, Leeds.



Colour range



Welsh Blue



Slate Grey



Black

11

16.6 m² 47 kg/m² **30° - 70° 75mm min** 195mm max 5.13 lin m/m² 16.3 /m²

95mm max 175mm mir

5.70 lin m/m² 18.1 m² 51 kg/m²

95mm max

175mm min 5.70 lin m/m² 18.1 /m² 51 kg/m²

Batten Size Recommended (fixed to BS 5534:2003 A1:2010) 38 x 25mm for spans up to 450mm 50 x 25mm for spans 450mm - 600mm Nail Size 45mm x 3.35mm aluminium nail

Tile Designation T-EN 490-IL-0-RF-316-/-/-243-2,8

The maximum rafter length should not exceed 10m without consulting the Technical Advisory Service.

Forticrete recommend the use of positive ventilation in roof spaces in accordance with the Current British Standard BS 5250 – Control of Condensation in Buildings.

Range of dry fix and ventilation products available For further information please call **01525 244 900**



Slate and Half

270



Lo-Vent Tile (available as Air or Soil Vent Kit)



Tile Clip



Verge Clip



Hardrow[®] Slates

Creating a tradition on British roofs for over 80 years.

- Stone Slate effect
- Flexibility of roof design
- Choice of 10 Solos and 10 Duets colours
- Choice of 5 Harmonies blends and 5 other popular mixes
- Wide range of sizes
- Extensive pitch capability
- Purpose made fittings to suit roof detailing
- Available in diminishing courses and random widths
- Through coloured
- Range of Dry Fix fittings and Ventilation products
- Exceptional water resistance
- Kitemarked to BS EN 490:2011
- 40 year product integrity guarantee





Purpose maa ittings



Lo-vent slate



Hardrow[®] Slate Solo[™] Mix, Yellow, Orange, Red and Brown, Solent Hotel, Fareham.

	381mm x 229mm (15" x 9")	457mm x 305mm (18" x 12")		x 457mm x 18")		610mm x 457mr (24" x 18")	
Pitch	30° & above	25º & above	20°-24.5°	25° & above	17.5 -19.5°	20°-24.5°	25º & above
Max gauge	150mm (6")	191mm (7 ¹ /2")	178mm (7")	191mm (7 ¹ /2")	241mm (9 ¹ /2")	255mm (10")	267mm (10 ¹ /2")
Minimum headlap	75mm (3")	75mm (3")	102mm (4")	75mm (3")	127mm (5")	100mm (4")	75mm (3")
Min side lap	95mm (3 ³ /4")	95mm (3 ³ /4")	89mm (3 ¹ /2")	75mm (3")	121mm (4 ³ /4")	102mm (4")	107mm (4")
Cover width	232mm	311mm	464mm	464mm	468mm	468mm	468mm
Nominal hanging length	331mm	407mm	407mm	407mm	560mm	560mm	560mm
Nominal thickness	14mm (⁹ /16")	14mm (%/16")	14mm (⁹ /16")	14mm (⁹ /16")	16mm (⁵ /8")	16mm (⁵ /8″)	16mm (⁵ /8")
Mass per 1000 slates	3.0 tonnes	4.8 tonnes	7.2 tonnes	7.2 tonnes	10.6 tonnes	10.6 tonnes	10.6 tonnes
Number per m ²	29.1	17.22	12.3	11.5	9.07	8.61	8.2
Weight per m ²	87 kg	83 kg	88 kg	83 kg	96 kg	91 kg	87 kg
Batten required lin m/m ²	6.7	5.24	5.62	5.24	4.15	3.92	3.75
Verge slates	381mm x 343mm (15" x 131/2")	457mm x 457mm (18" x 18")	457mm x (18" x	< 686mm < 27")		610mm x 686mm (24" x 27")	
Eaves & tops	254mm x 229mm (10" x 9")	330mm x 305mm (13" x 12")	305mm x (12" x			457mm x 457mm (18" x 18")	

Note: The minimum pitch is based on a maximum rafter length of 10m. For rafter lengths greater than this, please contact the Forticrete Technical Advisory Service.

Tile designations

381x229 (15x9) T-EN 490-NL-0-IF-232-/-/-331-3,00 457x305 (18x12) T-EN 490-NL-0-IF-311-/-/407-4,80 457x457 (18x18) T-EN 490-NL-0-IF-464-/-/407-7,20 610x457 (24x18) T-EN 490-NL-0-IF-468-/-/-560-10,60

Vertical cladding

Slates for vertical cladding are available to match standard roofing slates.

Random widths and diminishing courses

Slates are available in sizes to enable these traditional roofing techniques. Please contact our technical department for information.

*Also available as Ornamental Slates

Forticrete recommend the use of positive ventilation in roof spaces in accordance with the Current British Standard BS 5250 – Control of Condensation in Buildings.

Hardrow[®] Slates Solos[™]



Hardrow[®] Slates Harmonies[®]

Colour blend options (mixed on site)

Harmonies range



Other popular mixes





Hardrow® Slates Duets® Barley laid in diminishing courses on Bastion Homes.





Scan the QR code with your smartphone for instant access to our Hardrow® Slates products.

Hardrow[®] Slates Duets[™]



Colour range





Harvest

Spice



Twilight





Dusk

Forest

Sunset

Glade

14



Centurion[®] 10

The versatile concrete tile for low pitch applications.

- Proven in use since 1962
- Can be laid as low as 10°*
- On some simple roof designs Centurion can be laid down to a 10° roof pitch. Technical specifications can be found within the product literature section on our website.
- Wind barriers behind leading edge to combat wind driven rain
- Hidden fixings including tile clip
- Available in 5 colours
- Full range of dry fix fittings
- Kitemarked to BS EN 490:2011
- 60 year product integrity guarantee
- Low pitch roof light solution available

Technical Data

Overall Length	385mm
Hanging Length	368mm
Overall Width	230mm
Cover Width	200mm
Mass (approx.)	2.8 kg

Minimum Pitch*

Minimum Pitch	12.5°
Maximum Pitch	44°
Minimum Headlap	100mm
Batten Spacing	285mm
Batten Required	3.5 lin m/m²
Tiles Required	17.5 /m²
Mass (approx.)	50 kg/m²

10°

Batten Size Recommended (fixed to BS 5534:2003 A1:2010)

	38 x 25mm for spans up to 450mm
	50 x 25mm for spans 450mm – 600mm
Tile Fixing	1 tile clip fixed with a 50mm x 3.35
	aluminium nail
Tile Designation	T-EN 490-IL-0-RE-200-/-/-368-2-9

Note: On mortar bedded verges, verge tiles should be used to enable a verge clip to be fitted over the central flat section of the tile.

The maximum rafter length should not exceed 10m without consulting the Technical Advisory Service. Additional rafter length restrictions apply below 12.5°.

Forticrete recommend the use of positive ventilation in roof spaces in accordance

with the Current British Standard BS 5250 – Control of Condensation in Buildings. *Please refer to full Centurion Literature for restrictions on pitches below 12.5 Degrees



Scan the QR code with your smartphone for instant access

to our Centurion® 10 products.





Centurion® Red on a private house extension in Speedwell, Bristol.



LH Verge Tile



RH Verge Tile



Bonded Double Tile



Vent tile



Æ

Verge Clip





Autumn





Brown

Slate Grey



Low Pitch Roof Window System

The solution for roof windows as low as 10°...

Before now, the minimum pitch for most roof window installations has been 15°, and even at that pitch problems can occur.

At Forticrete we recognise that often homeowners will want a lower pitch roof to enable them to extend their property as far as they can – particularly with the recently relaxed planning regulations. We also understand the benefit of natural light to a home – so we have invested significant research and development into designing a roof window system which can be installed into a lower pitch roof.

Conventional roof windows and flashing kits work by discharging water up and over the face of the tiles. At lower pitches water does not run off so quickly and can therefore pool and lead to water ingress. The Forticrete Low Pitch Roof Window System solves this using a patented two-piece tray drainage flow system, which collects any water which runs under the tiles and disperses it across the trays, over the fascia and into the gutter in a controlled manner.

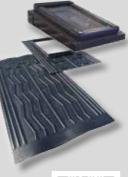
Your Low Pitch Roof Window System includes:

- Fakro FTP-V U3 Centre Pivot Window and flashing kit
- Innovative, patented 2 piece tray system
- Packs to fully ventilate eaves and abutment
- A 10 Year system guarantee

It is recommended that the Forticrete Low Pitch Roof Window System is installed with Centurion® low pitch interlocking roof tiles. Capable of being laid to a rafter pitch as low as 10° degrees, the Centurion® tile boasts wind barriers behind its leading edges which provide a highly effective barrier against the elements. This makes the Centurion® the ideal tile solution for low pitched roofs, particularly for single storey extensions with restricted height constraints or new build projects with a low pitch design. It is available in four colours and a full range of dry fix fittings to suit all applications.

Centurion[®]

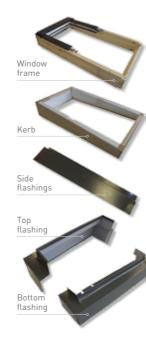
For more details on Centurion® tiles go to page 16

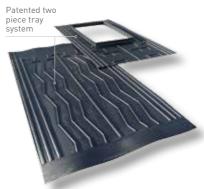




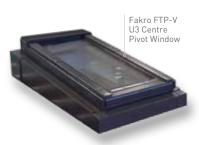
Scan the QR code with your smartdevice for instant access to the latest information.







The patented two piece tray system sits over the roofing underlay but below the battens. The tray system, roof window and flashings integrate to form a barrier – with any rainwater which has found a way under the tiles dispersed into the guttering system in a controlled manner.





it conforms to a specified range of environmental criteria.

V2[®]

Re-engineered for ultimate strength

- · Proven in tests to be one of the strongest tiles of its type
- Interlock feature, proven to give better wind driven rain and 'ice blocking' performance
- Batten supports to allow free flow of air keeps battens dry
- New design gives greater resistance to wind uplift
- Kitemarked to BS EN 490:2011
- 60 year product integrity guarantee
- Banded for ease of transport and handling

Technical Data

Overall Length	385mm
Hanging Length	358mm
Overall Width	230mm
Cover Width	200mm
Mass (approx.)	2.8 kg
Minimum Pitch	17.5° (smooth)
Minimum Pitch	22.5° (granular)
Maximum Pitch	70°
Minimum Headlap	75mm
Maximum Batten	
Spacing	310mm
Batten Required	3.2 lin m/m²
Tiles Required	16.1 /m ²
Mass (approx.)	45 kg/m²
Batten Size Recomme	nded (fixed to BS 5534:2003 A1:
	38 x 25mm for spans up to 450 50 x 25mm for spans 450mm -
Tile Fixing	50mm x 3.35mm aluminium na

purpose made tile clip Tile Designation T-EN 490-IL-0-RF-200-/-/-368-2,9

The maximum rafter length should not exceed 10m without consulting the Technical Advisory Service.

Forticrete recommend the use of positive ventilation in roof spaces in accordance with the Current British Standard BS 5250 - Control of Condensation in Buildings.



Scan the QR code with your

smartphone for instant access to our V2® products.



V2® Autumn on a Doctor's surgery in Ilford, Essex.



V2 Tile



Lo-Vent Tile (available as Air or Soil Vent Kit. Min Pitch 22.5°)







Granular Brown

Tile Clip



Verge Clip



Colour range





Red





Senator®

Traditional single pantile.

- Hidden tile clip
- Available in 5 colours
- Range of dry fix fittings
- Kitemarked to BS EN 490:2011
- 60 year product integrity guarantee





Scan the QR code with your smartphone for instant access to our Senator® products.





Senator® Red on Arncliffe Homes in Scholes.

Overall Length385mmHanging Length368mmOverall Width230mmCover Width200mmMass (approx.)2.8 kg

Technical Data

Minimum Pitch	22.5°
Maximum Pitch	70°
Minimum Headlap	75mm
Maximum Batten	
Spacing	310mm
Batten Required	3.2 lin m/m²
Tiles Required	16.1 /m²
Mass (approx.)	46 kg/m²
Batten Size Recomme	nded (fixed to B

Batten Size Recommended (fixed to BS 5534:2003 AT:2010)		
	38 x 25mm for spans up to 450mm	
	$50 \ x \ 25 mm$ for spans $450 mm$ – $600 mm$	
Tile Fixing	40mm x 3.35mm aluminium nail	
	or purpose made clip	
Tile Designation	T-EN 490-IL-0-RF-200-/-/-368-2,9	

The maximum rafter length should not exceed 10m without consulting the Technical Advisory Service.

Forticrete recommend the use of positive ventilation in roof spaces in accordance with the Current British Standard BS 5250 – Control of Condensation in Buildings.





RH Verge tile



Bonded Double Tile



Vent Tile (min. pitch 22.5°)



Tile Clip



Verge Clip

Colour range



Autumn

Red



Brown

23



Plain tiles

Traditional 101/2" x 61/2" Plain tile for vertical tile hanging with Gemini and Minislate Tiles

- Hanging nibs designed and positioned for maximum strength
- Shape designed to improve air circulation between tile and batten
- Available in 12 colours
- Through coloured
- Kitemarked to BS EB 490:2011
- 60 year product integrity guarantee
- Manufactured in all Gemini Colours

Technical Data

Overall Length	268mr
Hanging Length	243mr
Overall Width	165mr
Cover Width	165mr
Mass (approx.)	1.25 kg

Vertical Hanging

Minimum Headlap	35mm
Maximum Batten	
Spacing	115mm
Batten Required	8.8 lin m/m²
Tiles Required	53 /m²
Mass (approx.)	66 kg/m²
Batten Size Recommended (fixed to BS 5534:2003 A1:2010)	
	38 x 25mm for spans up to 600mm
Tile Fixing	2 x 40mm x 3mm aluminium nails
Tile Designation	T-EN 490-NL-0-RF-165-/-/-243-1,25

The maximum rafter length should not exceed 10m without consulting the Technical Advisory Service.

Forticrete recommend the use of positive ventilation in roof spaces in accordance with BS 5250:2011



Scan the QR code with your smartphone for instant access to our Plan Tile products.



-165-

Colour range





Turret - Plain Tile | Main Roof - Gemini® Brown

Wimpey Homes, Woolton, Liverpool.

Sunrise Blend

Mixed Russet



Jacobean (Made to order)





Autumn











Tile and Half



Slate Grey

Red

Black

25

Brown

External Angles



Note: Also available in Mercia and Ember Blends.





Standard fittings

Interlocking tiles

(Ridge Tiles available with, or without nail holes)

Ridge & hip detailing

Half Round Ridge (With or without nail holes)



Half Round Ridge Block End (With or without nail holes)



Half Round Baby Ridge (Mortar bedded)



Half Round Lo-Vent Ridge (Soil Vent Kit or Air Vent Terminal)



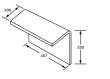
Half Round Gas Vent Terminal Kit



Full Half Round Monoridge (Made to order) (For dry vent ridge details or wet bedded)



Wet Bedded Type 1 & 2 Monoridge (Type 1 - 12.5° to 35°, Type 2 - 35.5° to 55°)



Full Half Round Monoridge Block End (Handed)



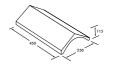
Third Round Hip (With or without nail holes)



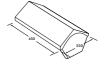
Third Round Hip Block End (With or without nail holes)



Universal Angle Ridge (With or without nail holes)



Universal Angle Ridge Block End (With or without nail holes)



Angle Baby Ridge (Mortar bedded)



Angle Ridge – 90°



Angle Ridge – 90° Block End



Angle Ridge – 120°



Angle Ridge – 120° Block End



Universal Angle Lo-Vent Ridge (Soil Vent Kit or Air Vent Terminal)



Universal Angle Hip (With or without nail holes)



Universal Angle Hip Block End (With or without nail holes)



Gemini Bonnet Hip (Dry fix)



Gemini Bonnet Hip Block End (Dry fix)

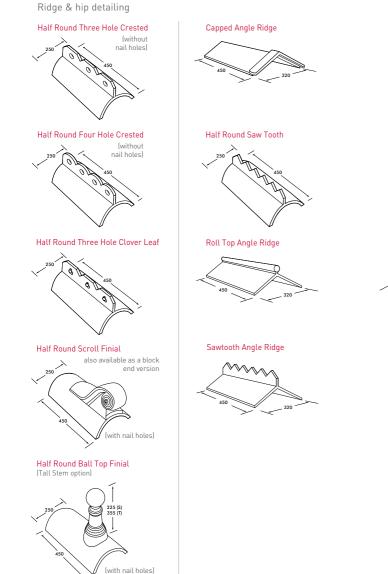


Ornamental ridges

For use with mortar bedding

Hardrow[®] Slates fittings

(Ridge Tiles available with, or without nail holes)



Note: Ornamental ridges are purpose made to order and are non- returnable

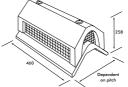
Ridge detailing Ridges available to suit roof pitches from 17.5° to 60°. Please specify at time of ordering.



Stop End Ridge (for hips)



Gas Vent Ridge Terminal Kit



Hip detailing

Standard Hip (90° angle on plan)



Valley detailing Standard Valley

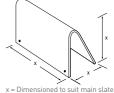




Block End Ridge (for gable ends)

Hardrow Lo-Vent Ridge (Soil Vent Kit or Air Vent Terminal)





size and rafter pitch

Splay Hips (alternate courses)





Note: Hardrow Slates purpose made fittings are made to order and are non-returnable

Non-standard Hip

(for unequal pitches)

Size to suit slate

Non-standard Valley

Size to suit slate

Size

Dry fix & ventilation systems

Eaves Vent Pack



Provides up to 25,000mm²/m ventilation

Suitable for use with:

Gemini	Minislate
Hardrow Slates	Centurion
V2	Senator

Cover 6m of eave

Options:

Option 1 - Eaves Vent Pack Universal eaves filler strips Eaves trays

Option 2 - Eaves Vent Extension Pack (for use with Eaves Vent Pack) Eaves tray extension pieces

Option 3 - Eaves non-vented pack for profiled tiles Universal eaves filler strips

Gemini[®] & Minislate[®] Dry Fixed Verge



Mitred hip packs

Hardrow[®] slates hip (1 per course)



Suitable for use with: Hardrow Slates

Options:

Option 1 - Standard hip slate Option 2 - Non-standard hip slate Option 3 - Splay hip slate

Suitable for use with:

Gemini Minislate

Cover 15 courses (RH or LH pack)

Components:

Universal Batten End Brackets Batten End Bracket nails Foam Stop End Block Dry Fix Verge Units Colour coded screw caps Stainless Steel screws

Minimum Pitch 22.5°

Suitable for use with: Minislate

Cover 10 courses

Components:

Hip soaker: For hips 90° on plan 22.5°-44.5° 45°-70° For hips 135° on plan 22.5°-44.5°

Mitred hip clip

Hardrow[®] slates mitred hip



Suitable for use with: Hardrow Slates

Options:

Option 1 - Mitred hip with lead soaker for pitches under 35°

Option 2 - Mitred hip with lead soaker for pitches over 35°

Third round dry hip



Suitable for use with: Gemini Minislate

Cover 6m of hip

Components:

Carrier Tray Stainless steel hammer screw and seal 80mm Drive Screw, Washer and Seal

Gemini[®] bonnet hip (1 per course)



Suitable for: Roof pitches 22.5° - 55°

Suitable for use with: Gemini Minislate

Components: Sealing tape (10m roll), 80mm Drive Screw, Washer and Seal (1 per bonnet hip tile)

Dry fix & ventilation systems

Dry Ridge System flat tiles



Pitch Range 41° - 55° Free vent area: 5000mm²/m

Suitable for use with: Gemini Minislate Hardrow Slates

Cover 6 metres of ridge (Rafters at 600mm centres)

Components:

Top filler units

80mm Drive Screws, Washers and Seals

Ridge to Ridge seals

Ridge batten brackets

Dry Fixed Vented Ridgeboard Pack profiled tiles



Max. pitch 45° (30° for V2) Free vent area: 5000mm²/m

Suitable for use with: Centurion V2 Senator

Cover 3 metres of ridge (Rafters at 600mm centres)

Components:

Top filler units 80mm Drive Screws, Washers and Seals Ridge to Ridge seals Ridge batten brackets Dry Fixed Vented Trussed Rafter Pack profiled tiles



Max. pitch 45° (30° for V2) Free vent area: 5000mm²/m

Suitable for use with: Centurion V2 Senator

Cover 3 metres of ridge (Rafters at 600mm centres)

Components:

Top filler units 80mm Drive Screws. Washers and Seals

Ridge to Ridge seals

Ridge batten brackets

Abutment Vent Pack



Min. pitch 12.5° Free vent area: 5000mm²/m

Suitable for use with:

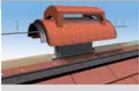
Gemini Minislate Hardrow Slates Centurion V2 Senator

Cover 3 metres of abutment (Rafters at 600mm centres)

Components:

Top fillers Ridge level felt spacers Top filler clips (Abutment pack only)

Gas Vent Ridge Terminal Kit



Suitable for use with:

Minislate Hardrow Slates* Centurion V2 Senator

Components:

Top fillers R-type adaptor Gas vent extension box (duo pitch) Vent gasket Fixing bolts/nuts & sealing washers

* For Hardrow Slates the Gas Vent Ridge Terminal is mortar bedded

Dry Fixed Vented ¹/₂ Round Mono Pitch Ridge Pack



Ventilated and non-ventilated mono pitch ridgeboard

Suitable for use with:

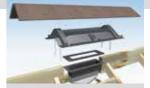
Gemini Minislate Hardrow Slates Centurion V2 Senator

Cover 3 metres of ridge

Components:

Ridge to Ridge seals 80mm Drive Screws, Washers and Seals Ridge level felt spacers

Air vent ridge terminal or Soil vent ridge terminal kit



Free vent area: 7850mm²/m (12000mm²/m without R-type adaptor)

Suitable for use with:

Gemini Hardrow Slates Centurion Senator

Minislate V2

Components:

(for soil vent kit)

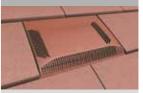
500mm x 100mm Flexi pipe and fixing clip

R-type adaptor

Extension box (duo pitch)

Vent gasket

'Lo-vent' air vent or Soil vent tile and slate kits*



Suitable for use with:

Gemini: min. pitch 22.5° Minislate: min. pitch 22.5° V2: min. pitch 17.5°

Free vent area:

Gemini: 7860mm² Minislate: 7860mm² 9875mm² V2:

Components:

Felt weir

500mm x 100mm flexi pipe and fixing clips (Soil vent kit)

* Registered design number 20966577.

Dry fix & ventilation systems

Air vent or Soil vent tile and slate kits



Suitable for use with

Hardrow Slates: min. pitch 17.5° Centurion: min. pitch 20° Senator: min. pitch 22.5°

Free vent area:

Hardrow Slates: 4426mm² Centurion: 2400mm² Senator: 2400mm²

Components:

Vent tile felt spacer (Air vent kit)

Felt weir (Soil vent kit) 500mm x 100mm flexi pipe and

fixing clip (Soil vent kit) Pre-cut Hardrow Slates (Hardrow kit only)

Hardrow[®] slates purpose made valley



Suitable for use with: Hardrow Slates (minimum pitch 25°)

Options:

Option 1 - Standard valley slate **Option 2** - Non-standard valley slate

Option 3 - Splay valley slate

Mitred dry valley



Suitable for use with

Gemini Minislate Hardrow Slates Centurion V2 Senator

Components:

Valley trough

Note: The use of tile & a halfs and double bonded tiles is recommended to eliminate the use of small cut sections of tile

Hardrow[®] slates 'Lo-vent' Air vent or Soil vent kits



Suitable for use with: Hardrow Slates

(minimum pitch 20°) Free vent area: 4,426mm²/m

Components:

Lo-vent terminal Felt weir 500mm x 100mm flexi pipe and fixing clip (Soil vent kit)

Note: Cut slates are not supplied

Working Procedures, Safety & General Precautions

Tiles should be fixed in accordance with the current British Standard BS 5534 (A1:2010). All leadwork should comply with LSA [Lead Sheet Association] details. Forticrete recommend that fixers of all slates and tiles, comply with BS 8000:Part 6:1990, with regard to workmanship and fragility of the product. During installation of the products, the correct setting out and working procedures should be employed to avoid walking directly on to products which have been fixed or are on any completed area of a roof. Should it be necessary to gain access via the roof where battens of adequate strength cannot be used as footholds, this should not be attempted without the use of adequate protection to the tiles or slates including the required number of crawling boards, ladders and cat ladders.

Please note that where there is a change of pitch, packing may be required between crawling boards, cat ladders and the surface of the tiles or slates to avoid damage to the product.Fixers should note that Forticrete do not recommend the practice of cutting tiles or slates in-situ. Other information can be obtained from the Health and Safety in Roof Work publication HSG33 and in the 'Working on Roofs' publication INDG284.

Reference should also be made to the Forticrete Technical Literature and Fixing Instructions.

34 CAD details available online www.forticrete.co.uk

Technical services

Providing technical solutions and services for successful roof detailing

- Bespoke fixing specifications
- Project appraisals
- Technical support and advice
- Ventilation advice
- 15 year Forsite roofing warrantee
- Product integrity guarantees
- Training
- CPD's
- Estimating (60m² or over)







'Lo-vent' Air Vent or Soil Vent Tile



Gemini® and Minislate® Dry Fixed Verge.

Dry fixed detailing providing mortar free mechanically fixed solutions

Dry valley

• Dry hip systems

- Dry ridge (ventilated or unventilated)
- Dry verge systems
- Ventilation products providing positive roof ventilation
- Over fascia eaves vent packs
- Over fascia eaves vent extension trays
- Purpose made ventilation tiles
- Purpose made ridge air, soil,
- and gas vent terminals
- Top edge abutment ventilation

36 CAD details available online www.forticrete.co.uk

notes:

Order your Forticrete roof tiles and slates from:

Approved stockist

Sales & product enquiries:

Forticrete Limited, Boss Avenue, off Grovebury Road, Leighton Buzzard, Beds LU7 4SD

Tel: 01525 244900 Fax: 01525 850432 E-mail: roofing@forticrete.com

This document does not form part of any contract and Forticrete cannot accept liability for any errors or omissions

In order to maintain its position as a market leader, Forticrete operates a policy of continuous product development and therefore reserves the right to alter specifications without notice.

Although the instructions contained in this publication and any other information publiched by Porticrete are believed to be accurate at the date of publication, they are strictly for guidance only and Forticrete accepts no liability in relation to their use of or any losses, howsoever caused. You are responsible for taking all masonable steps to ensure your use of the goods/products conforms to all applicable health and safety requirements from time to time. If in doubt, please consult appropriately qualified persions. All products sold by Forticrete are sold subject to Forticrete's Terms and Confitions of Sala, e copy of which is available on request.













Forticrete, Centurion, Gemini, Hardrow, Harmonies, Duets, Minislate, V2, Ecotile, Ecoslate, the Plus device and the E device are registered trademarks of Forticrete Ltd.

Anstone is a registered trademark of Ibstock Brick Ltd. Solo and Solos are trademarks of Forticrete Ltd.

All relevant Forticrete roofing products are CE marked. Declarations of Performance are available at www.forticrete-ce.com

C Forticrete Ltd. 2014. All rights reserved



www.forticrete.co.uk

Forticreteroofing