



**Sandtoft** 

## Rivius & Balmoral

Type		Interlocking Riven Slates
Material		Natural Alluvial Clay
Durability		Guaranteed for 60 years

Rivius  
and  
Balmoral

Rivius is the latest addition to Sandtoft's slate range. With its riven surface and dressed edges Rivius offers an authentic, natural slate appearance. Because it is made from natural alluvial clay with a tough ceramic finish this unique slate alternative will never lose its colour.

Rivius' large-format interlocking design gives a coverage of approx. 10 units per square metre which offers substantial material and labour savings compared with double lapped natural slate and fibre cement products.



Left to Right: Rivius & Balmoral

The  
Art of  
Clay

# Made From the Finest Alluvial Clay

Each slate is made with finest quality alluvial clay from the river Humber. Sandtoft have been working with this premium quality natural clay for over a hundred years, producing high quality roof tiles in rich colours that have long been recognised as adding value to the properties they adorn.

Our raw clay is carefully prepared and left to sour before being formed and pressed in a factory that is powered by 100% green electricity. Once pressed, the slates are dried using the recycled heat from our kilns before entering our energy-efficient continuous tunnel kiln. To complete the process, the slates are fired at a consistent and precise temperature to create products that are highly durable in a rich colour that will never fade.

With over 100 years' experience manufacturing clay tiles for the UK climate, Sandtoft is able to offer a 60 year durability guarantee for Rivius. Like all Sandtoft clay products Rivius is completely frost resistant and routinely tested to four times the current UK standard for frost.



Rivius shown with Multiverge dry verge system

Design  
Benefits

# Design that reduces material labour & weight

**At Sandtoft we believe that natural roofing materials shouldn't cost the earth. Through innovative design, material and installation costs can be reduced whilst maintaining the colour permanent aesthetic qualities of a natural roof covering.**

Rivius and Balmoral have been approved by planning authorities across the country precisely because both products are made from natural clay - and as such they will weather naturally like slate and sit beautifully in the landscape in just the same way as slate does. Yet the innovation that Rivius and Balmoral bring to the roof can yield important cost savings for any project.

In contrast to a double lapped slate, using an interlocking slate design can offer many benefits. Not only does the employment of an interlock negate the need for double lapping in order to produce a weathertight roof, it also reduces the amount of material laid on the roof thus speeding up completion times and saving significant labour and scaffolding costs. The interlocks are pressed into the clay during manufacture and have been engineered to provide high levels of performance against wind driven rain.

Since there is no need for on-site sorting, grading and holing, or any requirement for special slates at the eaves or ridge due to the fact that Rivius and Balmoral are designed with a variable gauge; the installation benefits of these unique and entirely natural slate alternatives becomes clear. On-site experience shows that installation times are in line with those of large format concrete tiles – and offer a considerable saving over natural quarried slate or man-made fibre cement products.



Rivius shown with Multiverge

Technical  
Data



## Rivius & Balmoral

### Technical Data

	Rivius	Balmoral
Minimum roof pitch	22.5°	22.5°
Headlap (minimum)	75 mm	75 mm
Headlap (maximum)	120 mm	120 mm
Batten spacing at max. gauge	330 mm	255 mm
Batten spacing at min. gauge	285 mm	210 mm
Size of slate	405 x 330 mm	330 x 226 mm
Covering capacity at max. gauge	10.5 slates per m <sup>2</sup>	20.5 slates per m <sup>2</sup>
Cover width	289 mm	191 mm
Profile depth	16 mm	16 mm
Hanging length	365 mm	300 mm
Weight as laid	42.0 kg per m <sup>2</sup>	42.0 kg per m <sup>2</sup>
Weight per 1000	4.0 tonnes	2.1 tonnes
Weight per slate	4.0 kg	2.1 kg
Weight per pallet (including pallet and packaging)	0.9 tonnes	1.1 tonnes
Quantity per pallet	210	480
Battens per m <sup>2</sup>	2.9 m	3.9 m
Batten size -		
Up to 450 mm rafter centres	38 x 25 mm	38 x 25 mm
Up to 600 mm rafter centres	50 x 25 mm	50 x 25 mm
Nail size/type for slates	50 x 3.35 mm aluminium clout head	50 x 3.35 mm aluminium clout head
Nail size/type for slate clips	65 x 3.35 mm aluminium clout head	65 x 3.35 mm aluminium clout head

Note: Unless otherwise stated, data is based on slates laid at minimum headlap



Rivius in Antique Slate



Rivius & Balmoral achieve a BRE Green Guide rating of 'A'

Balmoral in Antique Slate

**Classification**

**Rivius**  
 Type interlocking riven slate  
 Material natural alluvial clay  
 Style large format  
 Fixing single lap, cross bond

**Balmoral**  
 Type interlocking riven slate  
 Material natural alluvial clay  
 Style medium format  
 Fixing single lap, cross bond

**Guarantees**

Durability guarantee 60 years  
 Roof SPEC guarantee 20 years (See P11)

**Environment**

Manufactured using 100% green electricity, helping to achieve a reduction of our clay products' carbon footprint by 40% since 2001.  
 Raw clay from abundant reserves located adjacent to production facility. Product can be reclaimed so it has a second life cycle

**Standards**

**Quality**  
 BS EN ISO 9001: Quality management systems

**Environmental**  
 BS EN ISO 14001 Environmental management systems

**Manufacturing**  
 BS EN 1304: Clay roofing tiles  
 BS EN 1024: Geometric characteristics  
 BS EN 538: Flexural Strength  
 BS EN 539-1: Impermeability  
 BS EN 539-2: Frost resistance

**Design & fixing**  
 BS 5534: Code of practice for slating and tiling  
 BS 8000-6: Workmanship on building sites  
 BS 5250: Control of condensation

**Fire resistance**  
 BS EN 1304: deemed to satisfy  
 BS 476-3: SAA rated

**In use**

The contractor must work in accordance with BS 8000-6 and fix all slates in accordance with BS 5534. Details of our Fixing SPEC service, together with installation guides for slates and systems, are available for download from our website [www.sandtoft.com](http://www.sandtoft.com) or contact Technical Support for assistance on 0870 145 2021.

**Maintenance**

Extremely low maintenance. Only periodic removal of debris or growth required if in high-risk areas.

**Packaging and storage**

Supplied shrink wrapped on pallets. Download Safe Stacking recommendations from our website [www.sandtoft.com](http://www.sandtoft.com) or contact Customer Support for assistance on 0870 145 2020.

**Health & safety**

Adhere to current health and safety rules at all times. Download COSHH sheets from our website [www.sandtoft.com](http://www.sandtoft.com) or contact Customer Support for assistance on 0870 145 2020.

Rivius &  
Balmoral  
Fittings &  
Accessories

**Profile Ridge system**



**Components**

Each Pack has sufficient components (excluding ridges) for 2.7 metres of ridge. For use with 457mm Duracoat legged angle ridges and 457mm clay half round ridges.

**Profile mono ridge system components**

Each Pack has sufficient components (excluding ridges) for 2.7 metres of ridge. For use with 457mm Duracoat legged angle mono ridges and 457mm clay half round mono ridges.

**Rollridge system**



**Components**

Each Pack has sufficient components (excluding ridges) for 5.0 metres of ridge. For use with 457mm Duracoat legged angle ridges and 457mm clay half round ridges.

**Clip systems**



**Slate clip**



**Verge clip**



**Eaves clip**

**Eaves ventilation system**



**Components**

The Sandtoft eaves ventilation system is available in 6-metre packs. Systems are available in 10mm and 25mm.



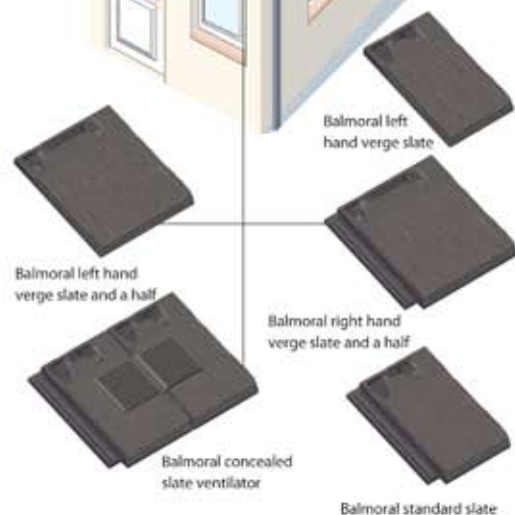
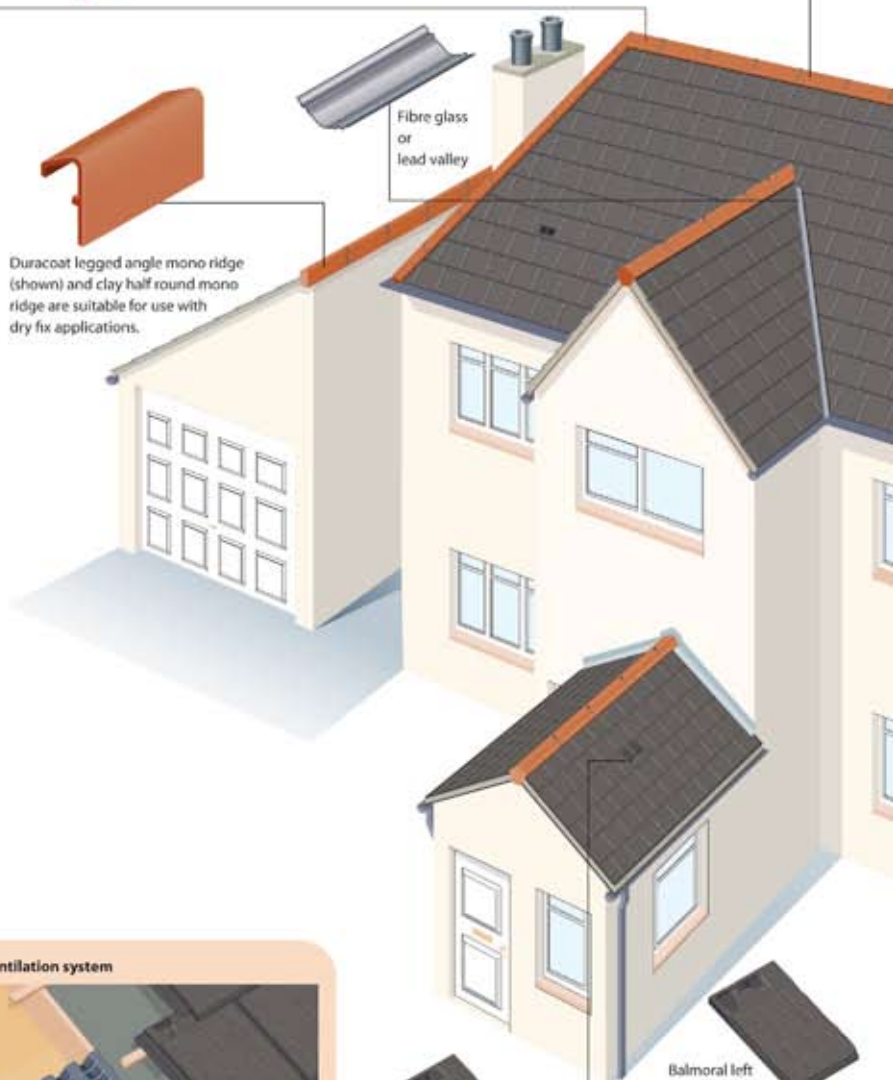
Duracoat legged angle ridge (shown) and clay half round ridge are suitable for use with dry fix applications. Clay angle option is also available (wet bedded only).



Duracoat legged angle mono ridge (shown) and clay half round mono ridge are suitable for use with dry fix applications.



Fibre glass or lead valley



Balmoral left hand verge slate

Balmoral left hand verge slate and a half

Balmoral right hand verge slate and a half

Balmoral concealed slate ventilator

Balmoral standard slate

**\* Important** When gas flue terminals are used in conjunction with dry fix systems a gas vent conversion kit is required. This consists of 4 no. 900mm long ventilator-closure strips to prevent exhaust gases from entering the roof void at either end of the gas flue terminal. This is to comply with Building Regulation Part J 1/2/3 Section 4.



**Multiverge system - Rivius only**



**Components**

Multiverge is colour matched to complement the slates and is easy to fix, providing a neat, secure and mortarless finish at roof verges. The system is suitable for use at both left and right verges.

**Balmoral verge system**



**Components**

Balmoral verge is colour matched to complement the slates and is easy to fix, providing a neat, secure and mortarless finish at roof verges. The system is suitable for use at both left and right verges.

**Roll Hip system**



**Components**

Each pack has sufficient components (excluding hip tiles) for 5.0 metres of hip.

**Abutment ventilation system**



**Components**

The Sandtoft Rollvent top abutment ventilation system comes in 3 metre rolls and is suitable for all profiles. Copper fixing clips are included.

Environment



Rivius shown with Multiverge dry verge system

# 100% Green Commitment

Choosing the Rivius and Balmoral means choosing the products of a truly eco-conscious company. At Sandtoft, we are passionate about reducing our impact on the environment and providing the construction industry with greener building materials. Our UK manufacturing processes are audited to environmental standard ISO 14001, but on top of this, we have taken radical steps to reduce our CO<sub>2</sub> emissions.

Significantly, we have switched our entire UK operation to 100 percent renewable electricity, begun an ambitious conversion of our vehicles to 100 percent biodiesel and undertaken a range of other energy efficiency methods. All of our clay pits are adjacent to our factories, reducing the CO<sub>2</sub> generated through the transportation of raw materials, and we endeavour to source all of our third-party materials from quality local suppliers.

In 2000, the ceramic industry made a pledge to the government that the sector would reduce its carbon emissions by 10 percent before 2010. Through our proactive environmental policies, Sandtoft achieved this target more than four years ahead of schedule; and since 2001, we have reduced the carbon footprint of our clay business by 40 percent. However

– we don't intend to stop there. We will continue to adapt and evolve our operation to further reduce our carbon emissions.

We are also reducing our landfill waste, working towards becoming a zero landfill business. The vast majority of our waste is already recycled back into the manufacturing process and our fired clay waste is used as hardcore for road construction. Because our clay roof slates and tiles are so durable, they are often reused, either on other installations or for a variety of different applications. We actively encourage this second lifecycle and appreciate the environmental value of reusing building materials.

Support



Rivius shown with Multiverge dry verge system

# Quality products with complete support

## Customer Support and General Enquiries

Tel 0870 145 2020

Fax 0870 145 2019  
[info@sandtoft.co.uk](mailto:info@sandtoft.co.uk)  
[www.sandtoft.com](http://www.sandtoft.com)

## Technical Support

Tel 0870 145 2021  
Fax 0870 145 2019  
[technical@sandtoft.co.uk](mailto:technical@sandtoft.co.uk)

## Ordering and deliveries

Clay products  
Tel 0870 145 2022  
Fax 0870 145 2018  
[orders@sandtoft.co.uk](mailto:orders@sandtoft.co.uk)

## Sandtoft Training and Assessment Centre (STAC)

Tel 0870 145 2020

To ensure total peace-of-mind, Sandtoft offers a range of support and guarantee packages that encompass design, specification and installation.

### Durability Guarantee

The roof is the single most exposed element of the building envelope – and as such, it needs to be as durable as it is beautiful. At Sandtoft, we are committed to providing the highest quality roofing solutions, and we are willing to provide the guarantees that will offer you peace-of-mind when investing in our products. All of our clay slates and tiles are guaranteed to last at least 60 years, but we go beyond simple durability guarantees.

### Roof SPEC Guarantee

Sandtoft can also provide a comprehensive design specification for your roof; a design specification that we will guarantee for 20 years under our Roof SPEC guarantee system. With Roof SPEC you can be assured that your roof is designed to comply with all of the relevant building standards and best practices, and is guaranteed to remain weathertight for 20 years.

### Fixing Specifications

Sandtoft also offers the Fixing SPEC comprehensive fixing specification service – designed to ensure your roof is fixed correctly and securely in accordance with the relevant British Standards. Using BRE BREV data, our postcode-based system provides quick and accurate fixing recommendations to suit your project's geographical position and design specifics. Fixing SPEC is available through our website at [www.sandtoft.com](http://www.sandtoft.com) – simply fill in your project details and we'll do the rest.

### CAD Library

To help save you time, we also offer a vast online library of CAD details through our website, in DWG, DXF and JPEG formats.

### Installation

For detailed guidance on how to install Rivius and Balmoral please download Installation Guides from our website or contact Customer Support on 0870 145 2020.

For more information on Sandtoft Roof Tiles visit [www.barbourproductsearch.info](http://www.barbourproductsearch.info)

For more information on the widest and most innovative range of roof tile systems in the UK please visit **[www.sandtoft.com](http://www.sandtoft.com)** or call 0870 145 2020 for a product selector

**Sandtoft** 

**CAMPAINING FOR  
BEAUTIFUL ROOFS**

Tile colours shown in this brochure are as accurate as the printing process will allow.

Product samples are available upon request.

At Sandtoft we are continually innovating and improving our product range.

We reserve the right to change product specifications without notice.

**This brochure is printed on 75% post consumer waste recycled paper and is FSC accredited.**