



C/SB | | (47) | Ng2 | |
September 2010

Sandtoft

20/20

Interlocking Clay Plain Tile

**Now
performs
at pitches
down as
low as 15°**

20/20

The 20/20 is a New Generation interlocking clay plain tile that makes a clay plain tile roof more affordable through an innovative design that reduces labour and material costs, and cuts completion times.

This tile has a single lap design providing coverage of approximately 20 tiles per square metre instead of the usual 60 when using traditional plain tiles. This economy of materials together with Sandtoft's use of 100% green electricity combines to offer a **50%** saving in CO₂ per roof when compared with traditional clay plain tiles*.



Now performs at pitches
down as low as 15°

20/20

The Art of Clay



20/20 - Flanders & **Humber** - Flanders



20/20 - Natural Red

Building on tradition

The 20/20 was conceived in response to those seeking to achieve the aesthetic and planning-friendly benefits of traditional clay plain tiles without incurring the high cost inherent in their design. By choosing the 20/20 you can achieve the colour permanent benefits of a natural clay roof at a more affordable price.

Clay plain tiles have been used for centuries to create beautiful roofs that are full of character and distinction. However, whilst they give any property added kerb appeal and satisfy planning guidelines, using plain tiles does carry a cost burden in terms of labour and materials.

Making clay affordable

The 20/20 changes all that by using an innovative single lap design that requires fewer tiles and battens.

The 20/20 also features a unique open gauge design that makes interlocking clay tiles as easy to install as concrete tiles. The open gauge allows complete freedom in setting the gauge which together with the elimination of the need for cuts at eaves and ridge, plus enhanced lateral shunt will reduce roof completion times and save labour costs. These healthy savings in installation costs make 20/20 **more cost effective than both clay and concrete plain tiles.**



20/20

Design Benefits



20/20 - Flanders

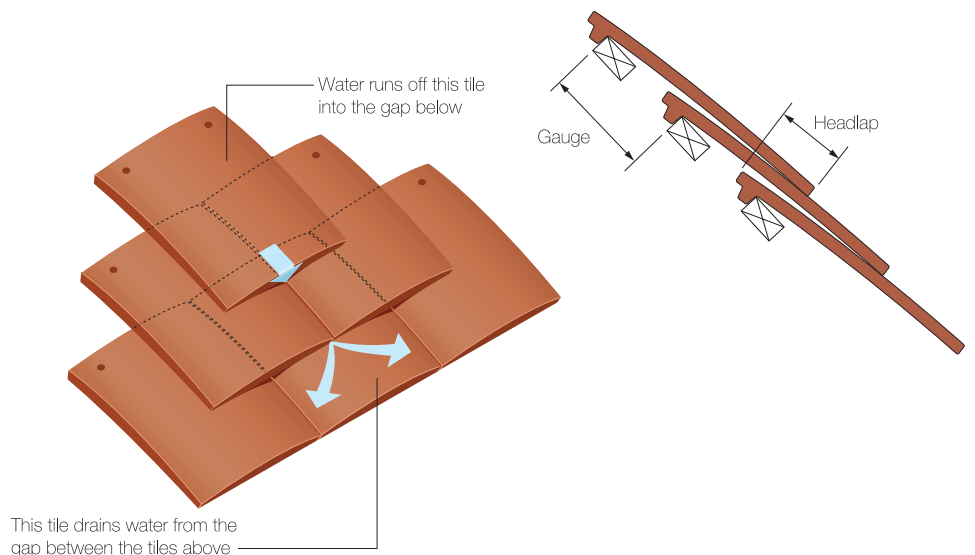
Design that reduces material, labour & weight

Traditional plain tiles

Traditional double lap plain tiles are one of the oldest forms of roof covering in the UK. The term 'double lap' is applied to the way that the plain tiles are laid on the roof to create an effective barrier to water. Plain tiles like slates are uniform in shape and have no side interlocks, allowing the water to enter the gap between the tiles.

To drain this water away safely there must be another tile beneath each joint. This means that at any point on the roof there is at least a double layer of tiles, hence the term 'double lap' – at the headlap there are actually three layers of tiles (see below)

The traditional plain tile system





The 20/20 has been designed to emulate traditional plain tiles, particularly when the roof is viewed from ground level.

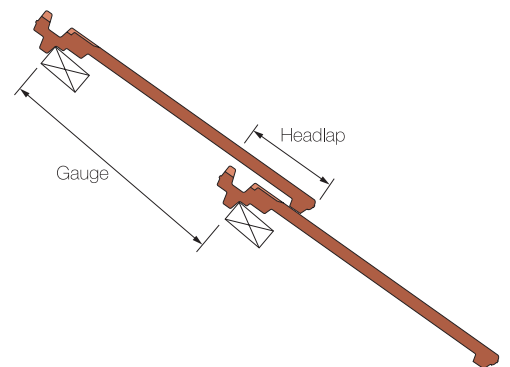
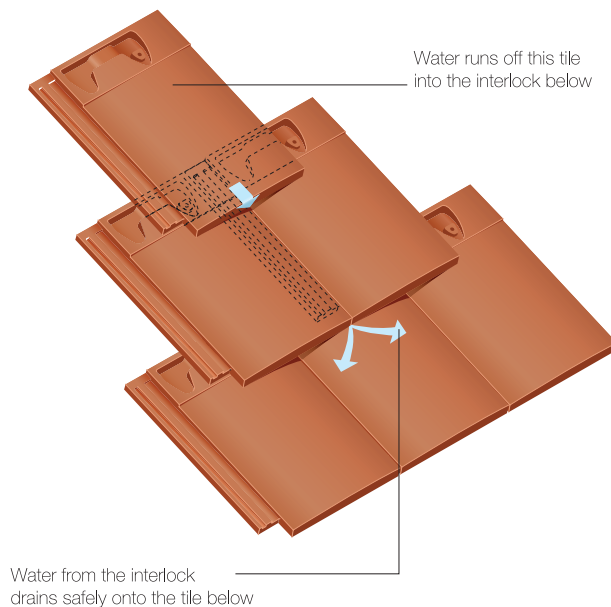
The 20/20 interlocking system

By adding features to the plain tile form, such as side interlocks and drainage channels it is possible to prevent the water from falling between the tiles at the side joint and instead carry it away to the tile below. This means that it is not necessary to have a double layer of tiles, which dramatically reduces the number of tiles required and the weight on the roof. 20/20 is half the weight of concrete plain tiles and over 40 per cent lighter than clay plain tiles.

Installing fewer tiles means less material and labour is required per roof and allows completion times and installation costs to be reduced.

The interlocking system also provides a much greater degree of control over wind and water ingress and this enhances performance. As a result 20/20 can be used on roof pitches as low as 15°.

The 20/20 interlocking system



20/20

Technical Data



20/20

Technical Data

Minimum roof pitch*

Headlap (minimum)

Headlap (maximum)

Batten spacing at max. gauge

Batten spacing at min. gauge

Size of tile

Covering capacity at max gauge

Cover width

Profile depth

Hanging length

Weight as laid

Weight per 1,000

Weight per tile

Weight per pallet

(including pallet and packaging)

Quantity per pallet

Battens per m²

Batten size -

Up to 450 mm rafter centres

Up to 600 mm rafter centres

Nail size/type for tiles

Nail size/type for metal / plastic tile clips

BRE Green Guide rating

Roof

15° @ 100 mm headlap

22.5° @ 75 mm headlap

75 mm

120 mm

255 mm

210 mm

330 x 226 mm

22.7 tiles per m² (at 100 mm headlap)

20.5 tiles per m² (at 75 mm headlap)

191 mm

16 mm

300 mm

47.6 kg per m² (at 100 mm headlap)

43.1 kg per m² (at 75 mm headlap)

2.1 tonnes

2.1 kg

1.0 tonnes

480

4.3 m (at 100 mm headlap)

3.9 m (at 75 mm headlap)

38 x 25 mm

50 x 25 mm

45 x 3.35 mm aluminium ring shank clout head

55 x 3.35 mm aluminium ring shank clout head

A+

Classification

Type

new generation
plain tile

Material

natural clay

Fixing

single lap,
cross bond

Guarantees

Durability guarantee 60 years

Roof SPEC guarantee 15 years (See P14)

Standards

Quality

BS EN ISO 9001: Quality 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

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

*Maximum rafter length at 15° is 9 metres or 6 metres depending upon site exposure.

Rainwater must not discharge onto a 15° roof from upper roofs or gutters etc.

Due to natural drying and firing shrinkage in the manufacturing process small variations in size can occur, therefore it is advisable not to mix tiles of different colour or batches on the roof.

At roof pitches from 15° to 22° the Sandtoft low pitch concealed tile ventilator must be used.



20/20 achieves a BRE Green Guide rating of 'A+'

20/20 - Natural Red

In use

The contractor must work in accordance with BS 8000-6 and fix all tiles in accordance with BS 5534. Our Fixing SPEC service, together with installation guides for tiles and systems, are available for download from our website www.sandtoft.com or contact Technical Services for assistance on 0844 9395 999.

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 or contact Customer Support for assistance on 0844 9395 900.

Health & safety

Adhere to current health and safety rules at all times. Download COSHH sheets from our website www.sandtoft.com or contact Customer Support for assistance on 0844 9395 900.

Colours



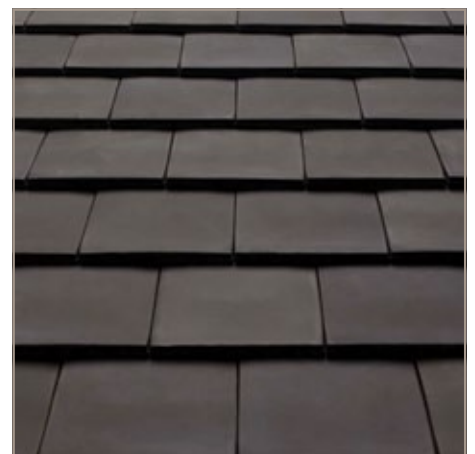
Natural Red



Tuscan



Flanders

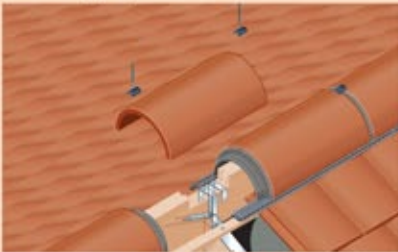


Antique Slate

20/20

The 20/20 roof system

Profile Ridge system



Components

Each pack has sufficient components (excluding ridges) for 2.7 metres of ridge. For use with 305mm clay or 457mm Duracoat half round ridges.

Profile mono ridge system components

Each pack has sufficient components (excluding ridges) for 2.7 metres of ridge. For use with 305mm clay or 457mm Duracoat half round mono ridges.

RollRidge system



Components

Each pack has sufficient components (excluding ridges) for 5.0 metres of ridge. For use with 305mm clay or 457mm Duracoat half round ridges.

Clip systems



Tile clip



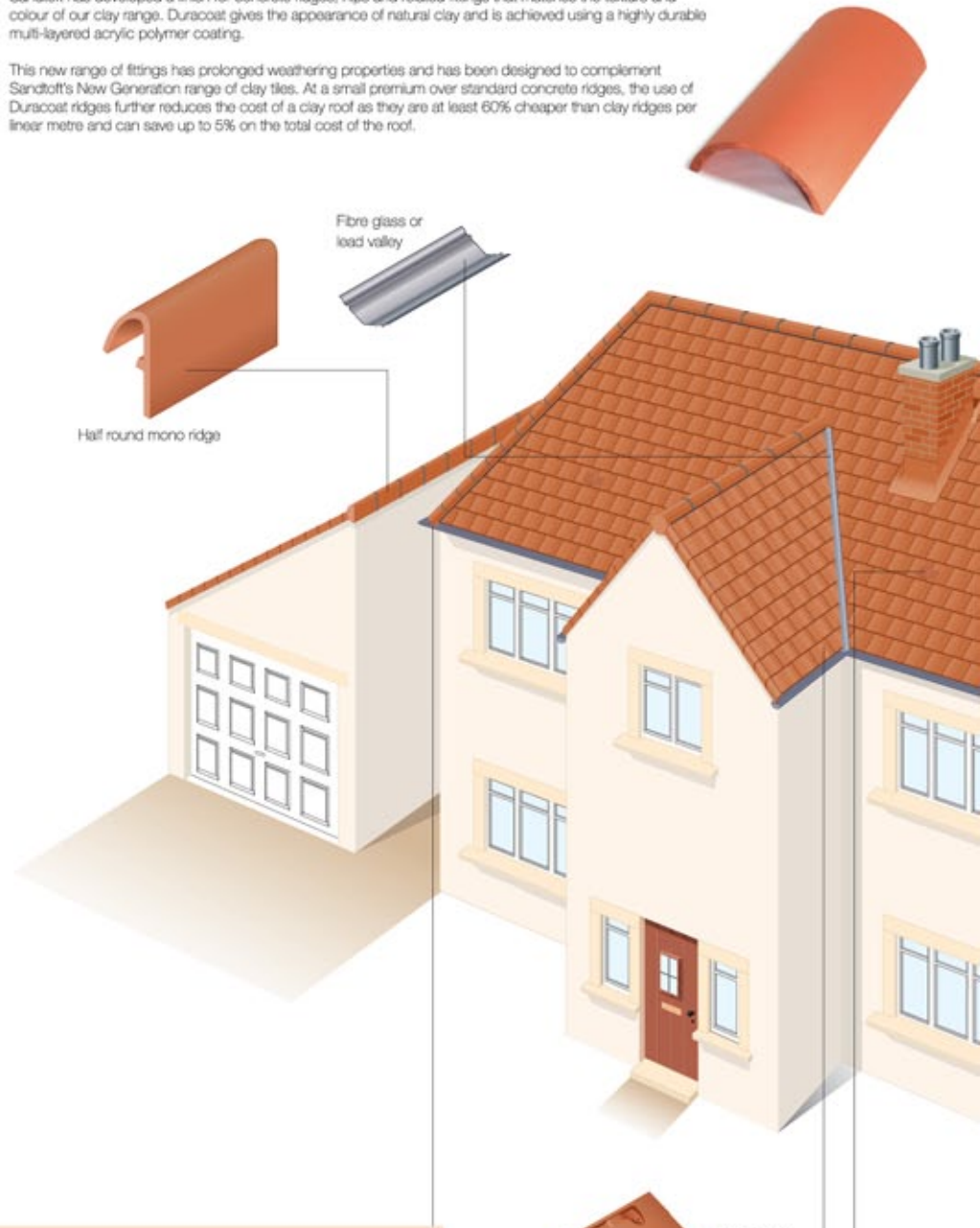
Verge clip

Eaves clip

Duracoat Ridge Range

Sandtoft has developed a finish for concrete ridges, hips and related fittings that matches the texture and colour of our clay range. Duracoat gives the appearance of natural clay and is achieved using a highly durable multi-layered acrylic polymer coating.

This new range of fittings has prolonged weathering properties and has been designed to complement Sandtoft's New Generation range of clay tiles. At a small premium over standard concrete ridges, the use of Duracoat ridges further reduces the cost of a clay roof as they are at least 60% cheaper than clay ridges per linear metre and can save up to 5% on the total cost of the roof.



Eaves ventilation system



Components

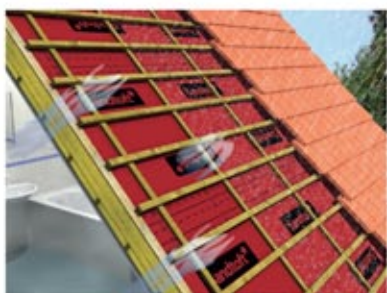
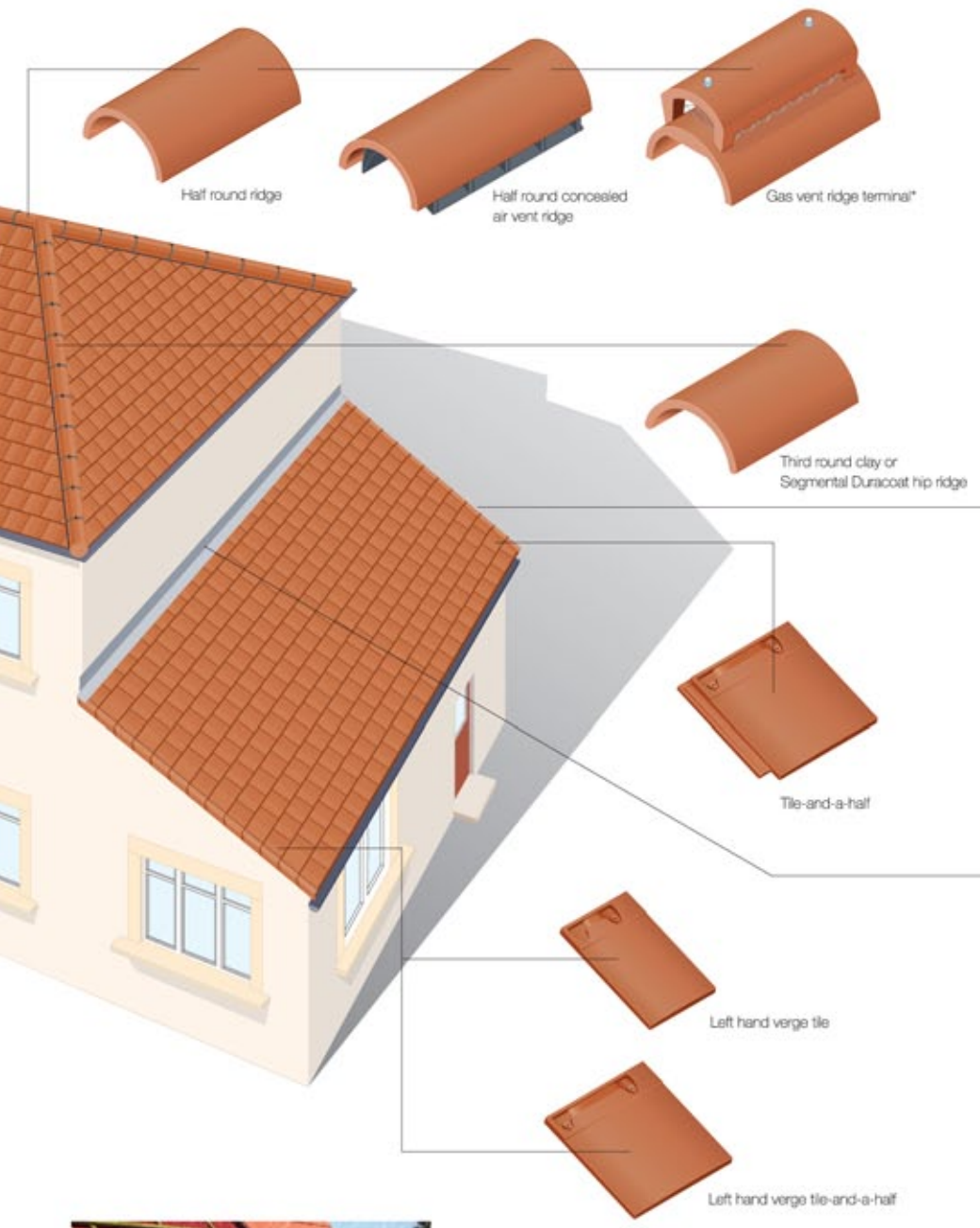
The Sandtoft eaves ventilation system is available in 6 metre packs. Systems are available in 10mm and 25mm.



Standard tile



Concealed tile ventilator (NEW: low pitch version also available for roof pitches down to 15°)



Koratech® Classic & Koratech® Classic Super
Vapour permeable membranes suitable for both warm and cold roof designs on any roof shape and building type.

Koraflex



Koraflex is an aluminium roll, fully coated with a butyl adhesive backing for superior adhesion. It is an ideal replacement for lead for weatherproofing roof junctions such as side and top abutments around chimneys and dormers. Available in two widths 320mm and 450mm and two standard colours grey and red. See separate brochure.

Medium Format Dry Verge



Components

The MF dry verge system is colour matched to complement the tiles 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.

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.

Roll Hip system



Components

Each pack has sufficient components (excluding hip tiles and trays) for 5.0 metres of hip. For use with 305mm clay third round or 457mm Duracoat segmental hip ridges.

20/20

Environment



20/20 - Antique Slate



20/20 - Natural Red

100% Green Commitment

Choosing the 20/20 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 CO₂ emissions.

Significantly, we have switched our entire UK operation to 100 per cent renewable electricity, and undertaken a programme of other energy efficiency methods. All of our clay pits are adjacent to our factories, reducing the CO₂ 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 per cent 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 per cent. 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 tiles and slates 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.



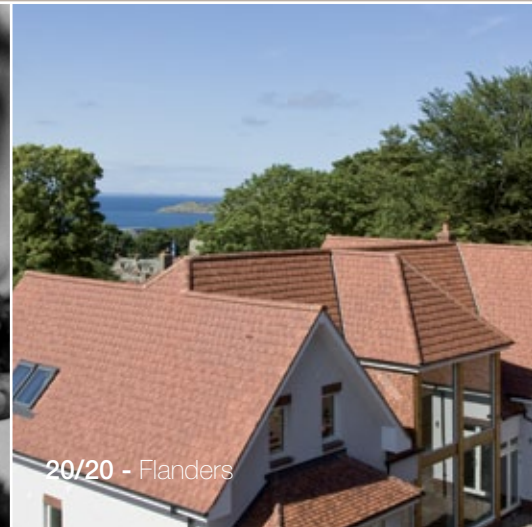
20/20 - Flanders & Humber - Flanders



20/20 - Natural Red & Humber - Natural Red

20/20

Service & Support



Quality products with complete support

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

Customer Support

Pricing, orders and general enquiries

Tel 0844 9395 900

Fax 0844 9395 950
info@sandtoft.co.uk
www.sandtoft.com

Technical Services

Full range of technical services
Tel 0844 9395 999
Fax 0844 9395 950
technical@sandtoft.co.uk

Despatch Team

Delivery and vehicle information
Tel 0844 9395 955
Fax 0844 9395 950
orders@sandtoft.co.uk

Sandtoft Training and Assessment Centre (STAC)

Tel 0844 9395 900

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 tiles and slates are guaranteed to last at least 60 years (subject to the standard terms of the guarantee), 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 15 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 15 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 – 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

Detailed installation guides and systems video guides are available from our website or contact **Customer Support on 0844 9395 900.**



The Sandtoft logo is located in the top right corner. It consists of the word "Sandtoft" in a white, sans-serif font, followed by a white diamond-shaped icon with a cross inside. The logo is set against a red rectangular background.

Sandtoft

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Community registered design application No. 000165840
UK patent pending: application No. 0407835.8
European patent pending: application No. 05252150.7

Product 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 a 100% recycled FSC certified paper.

The Wienerberger logo is located in the bottom right corner. It features a stylized red and white graphic of a roof tile above the word "Wienerberger" in a bold, black, sans-serif font.

Wienerberger