



Causeway Riven

Causeway

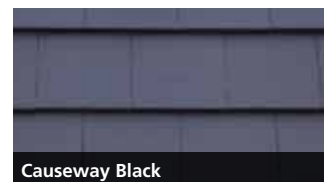
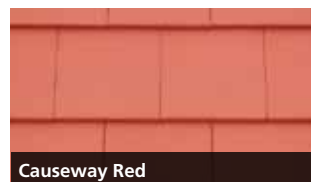
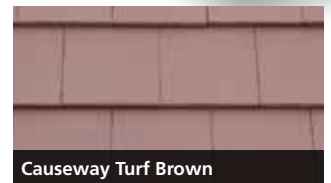
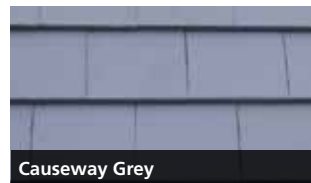
## Causeway Slate Effect Tiles

**Northstone manufacture the Scott range of roof tiles and have fifty years experience making roof tiles in Toomebridge, Northern Ireland.**

The evolutionary new Causeway roof tile is a fifth generation flat tile developed by the Company. The Causeway tile offers contractors, specifiers and home builders the beauty of a slate effect roof while keeping cost to a minimum.

- ◆ Smooth and Riven slate effect finish available
- ◆ Mock bond finish available to achieve a plain tile effect
- ◆ Thin and softened leading edge
- ◆ Hidden interlock to improve strength and slate appearance
- ◆ Extensive range of colours pigmented through
- ◆ Less tiles per m<sup>2</sup>
- ◆ Full range of dry fix and accessories available
- ◆ Cost saving against slate
- ◆ Can be laid to 17.5° pitch
- ◆ 30 year product integrity guarantee
- ◆ Ornamental ridge tiles available

### Colour samples



### Product Samples

The colours reproduced within this brochure are as accurate as the photographic and printing process will allow. Where colour matching is critical, it is advised to view actual product samples which are available from Northstone on request.

Northstone manufacture roof tiles in one of the most modern, and energy efficient tile plants in Europe. In keeping with the Northstone environmental policy, the Causeway incorporates recycled product and by design the Causeway uses less raw material per m<sup>2</sup> than other roof tiles. Products are manufactured to; ISO 9001, 14001 and 50001 quality, environmental and energy management systems.

Northstone is committed to product development and continuous improvement for its roof tiles and fittings. All information in this brochure is accurate at the time of printing

## Causeway Tile Dimensions And Specifications

	Causeway Tile	Left Hand Full Tile	Left Hand 1/2 Tile	Right Hand 1/2 tile
Overall length mm	420mm	420mm	420mm	420mm
Hanging Length mm	400mm	400mm	400mm	400mm
Overall Width mm	334mm	307mm	153mm	180mm
Average Cover Width mm	310mm	307mm	153mm	153mm
Mass (approx) kg	4.65	4.4	2.1	2.45

Leading Edge Depth 17mm approx.

## Causeway Standard Fixing Specification

The exposure, location and complexity of the roof will determine the overall fixing specification. Site specific fixing specifications are available on request from Northstone. Northstone can provide services to help you choose or specify your roof and its fixings.

- Minimum fixing; all tiles nailed
- Additional clipping may be required depending on; the site exposure, the rafter length, the height to the eave and the roof pitch. Clips are available from Northstone.
- Nail size 45mm x 3.35mm aluminium nail.
- Minimum Batten size: 38 x 25 mm for rafter spans up to 400mm, 50 x 25mm for rafter spans up to 600mm.
- Northstone recommend the use of ventilation in roof spaces in accordance with BS 5250:2002.
- All tiles are delivered wrapped on pallets, 240 tiles per pallet.



Northstone recommends the use of Northstone Dry Vented Ridge in conjunction with eaves ventilation to control the level of condensation above and below the underlay and to eliminate the potential for frost damage to bedded mortar.

Northstone recommends the Northstone Thin Leading Edge Dry Verge System to eliminate verge maintenance and the potential of mortar damage from frost.

Roof Tile Fitting Specifications					
Pitch/degrees	Min/Max Headlap	Min/Max Batten spacing	Minimum Battens Required per m <sup>2</sup>	Minimum Tiles Required per m <sup>2</sup>	Minimum Mass per m <sup>2</sup> (approx)
17.5°-25° (1)*	100 mm 140 mm	320 mm 280mm	3.1 m	10.2	47.5kg/m2
25°-54° (2)*	75mm 140mm	345 mm 280mm	2.95 m	9.45	44 kg/m2

Pitches 54° and above, consult Northstone technical services for fixing advice.

### Contact Northstone for technical advice on:

- (1)\* Fixings and headlaps on low pitch roofs with rafters exceeding 4m.
- (2)\* Fixings and headlaps on exposed sites, rafter lengths exceeding 6m, roof pitches over 40° and eave heights over 5m.

## Manufacturing, Handling and Surface Characteristics

**Guarantee:** The tile carries a 30 year product integrity guarantee from date of supply, subject to the company's normal terms. Northstone cannot stand over the integrity of the entire roof where other manufacturers accessories and fixings have been used.

**Scratches & Abrasions:** These can be caused by packing, loading, transport and handling on site: These are surface marks only and it does not affect the performance of the products. The appearance will improve with weathering in due course.

**Efflorescence:** This is a naturally occurring phenomenon in concrete products caused by weather conditions penetrating into the pores of the concrete and dissolving lime. The hydrated lime (calcium hydroxide) reacts with carbon dioxide in the atmosphere to produce the insoluble calcium carbonate which is deposited as efflorescence. Fortunately the chemical process of carbonation continues to eventually form the soluble calcium bicarbonate which washes away with rain.

The level of lime and weather conditions can vary which can determine the level of efflorescence.

**Mosses & Lichens:** Mosses and lichen tend to grow on roofs which are in the vicinity of trees or in shady damp conditions. North facing slopes remain damper longer and attract moss and lichen growth more than roof slopes which dry out quicker.

In normal circumstances these growths are not detrimental and do not effect the overall performance of the tile.

**Surface Coating:** The colour of the Causeway tile will change over time with natural weathering. The majority of concrete roof tiles manufactured in the world are surface treated, the major benefit being to protect the tile during the early, critical stages of its lifespan. It is recognised in the roofing industry that the surface coating of a concrete tile is temporary, lasting only for a few years; long enough to give that protection to the early life of the product.

The performance of the roof tile is not affected by any of the above conditions and the quality requirements of the tile remain intact.

## Working Procedures, Safety & General Precautions

Northstone recommend minimal roof traffic during and post installation of all roof tiles. Tiles should be fixed in accordance with BS 5534:2003. Northstone recommend that fixers of all tiles regard the products as fragile as stated in BS8000;Pt6: 1990 Section 5. During installation of the tiles, the correct setting out and working procedures should be employed.

Health and Safety information can be obtained from the Health and Safety in Roof Work publication HGG33 and in the 'Working on Roofs' publication INDG284.



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