

# EcoDecking



New tech

Roofing Systems



## Roof Tile Installation Guide

### Getting Started

Eco Decking Systems Ltd are the UK & European distributor for NewTech manufacturing that produces the 100% recycled roof tile. The formula is made up of 90% recycled post-industrial plastic and 10% adhesive. This formulation gives the tile incredible strength and flexibility which will provide long lasting performance. ***Please ensure that you follow the installation guidelines and the correct procedures as any variance to this will void your warranty.***

When getting started, be sure that you have all the necessary fitting materials together

### Additional Material Required:

**Roof Base:** NewTech tiles must be installed onto a minimum of 18mm plyboard or 18mm oriented strand board (OSB). It is also recommended that all previous roofing materials be torn off prior to installation getting started.

**Underlay:** A minimum of one layer of non-perforated asphalt saturated felt or synthetic underlay (1F or equivalent), that complies with **BS 747** regulations, must be installed over the entire roof. ***The use of any other tar-based felt underlay will void your warranty.***

**Nails:** NewTech tiles must be secured using the relevant size, 9.5mm diameter, copper, stainless steel or hot-dipped galvanised nails.

**Flashing:** Copper or 26-gauge-clad steel is the recommended flashing material that can be used on eaves and rake edges. Flashing is also required at all valleys and the perimeter of the tile layout.

**Vents:** It is imperative that your roof be vented appropriately, without proper ventilation your roof is prone to condensation, mould mildew, warping of the roof base, and/or deteriorating building materials. All roof structures should be vented in order to allow heat build up and moisture to escape the attic area. Vents are to be placed proportionately at the eaves, i.e. soffits (for cold air in) and at or near the ridge (for hot air out). Cross-flow ventilation should be allowed for in valleys where Stress Skin roof panels or cathedral ceilings are in use. Metal, wood or polymer ridge vents are all acceptable.

**Important Reminder:**

**Always ensure that your roof has adequate roof ventilation regardless of the roofing material being used. If not you may be at risk of serious structural damage**

**Roof Brackets:** Use roof brackets when installing tiles on a roof with slope greater than 6" rise over 12" run (6/12). When removing roof brackets, no sealant is required to seal the holes. NewTech tiles have a self-sealing property, and will seal itself over time. If sealant is preferred, Silicone based sealant is recommended.

**Colour Variation:** Similar to real slate, NewTech tiles fluctuate in colour from pallet to pallet. For an authentic look, all slates should be mixed during installation. This will ensure any colour contrast to be evenly spread and balanced throughout the roof; minimizing any blotching of colours for visual appeal. For best results create pre-sorted bundles by selecting one bundle from every pallet, then selecting one slate from every bundle. Create these mixed bundles until the roof installation is finished. Mechanically mixing the slates evenly spreads out each bundle as far as possible.

**Important Reminder:**

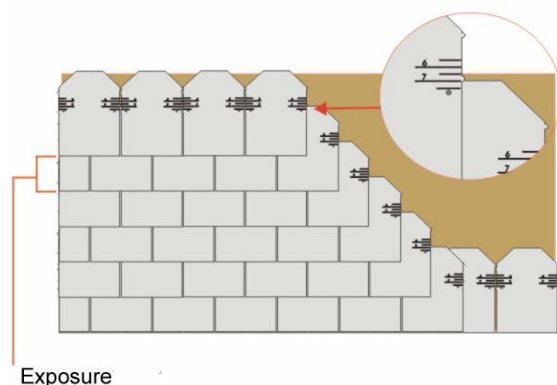
**By taking one tile from each bundle and each bundle from a different pack, this will spread any colour variation evenly. Eco Decking Systems Ltd will not be held liable for improper installation of the slates.**

## Tools:

**Hammer/ Nail Gun:** Nail guns and all other tools to secure nails could be used with NewTech tiles.

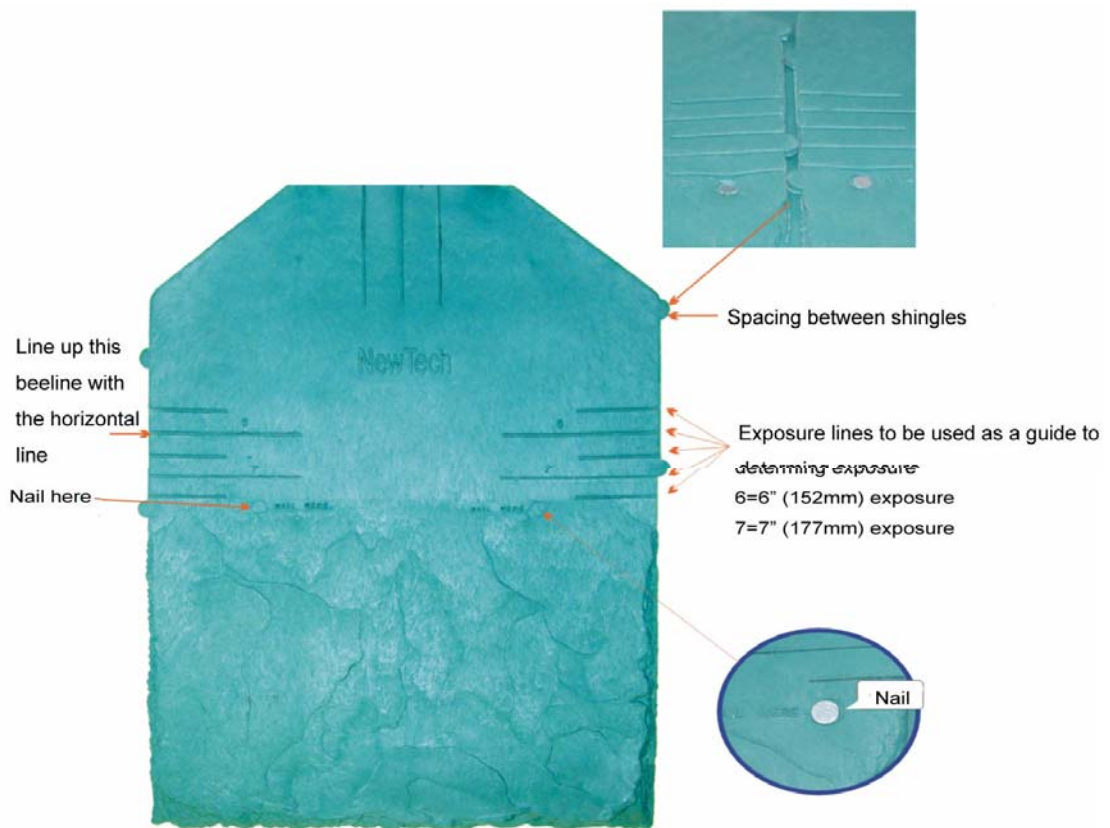
**Chalk Line:** Chalk lines are required to ensure proper alignment. It is recommended to use a chalk line. Markings on shingles should be used as a rough guide only.

**Utility Knife/ Saw:** A simple Stanley blade or utility knife could be used to cut shingles to the correct shape and size as necessary for gable ends, and valleys. NewTech tiles are solid all the way through, and would not leak even when cut.



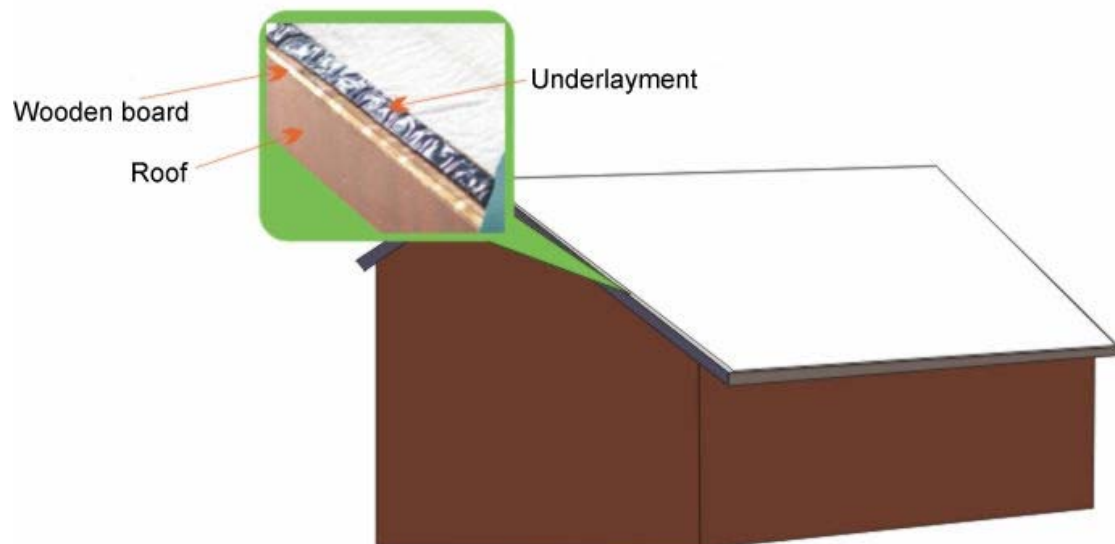
## Tile Details:

Line up the tiles using the beeline with the horizontal line, allow spacing between the tiles, see two nibs on both sides of the tile, and then use the exposure lines as a guide to determine the exposure. Nail the tiles in the two places as indicated (nail here) and use the 6" or 7" markings to line up each tile.



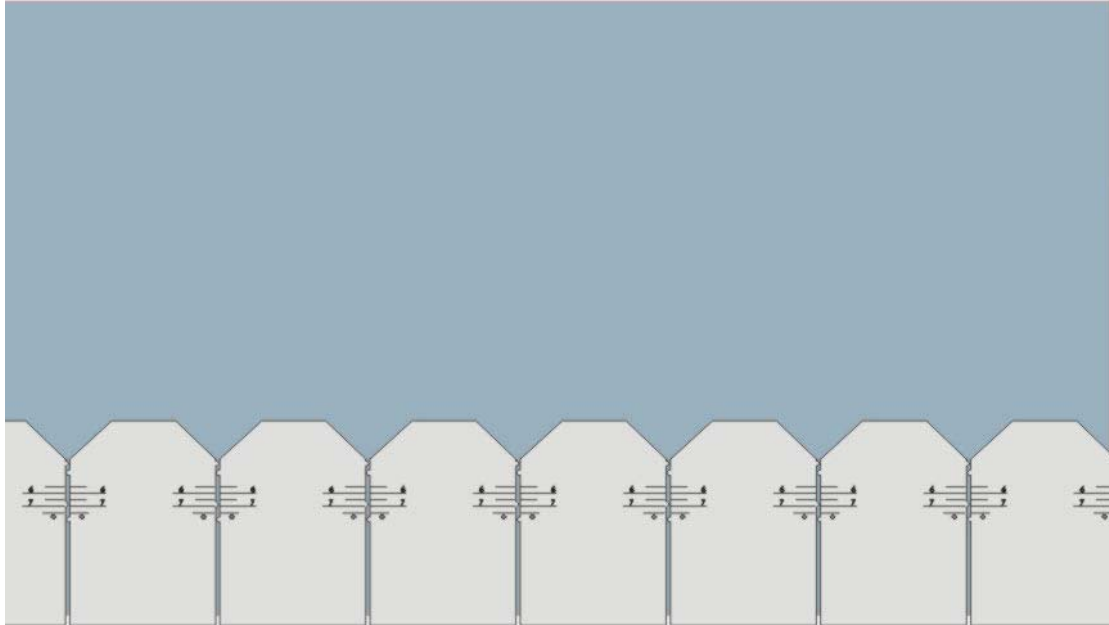
## Installation Procedure:

Prepare roof base ensuring that all nails are nailed in, and remove all debris and dirt. If base of roof is not properly cleaned, the underlay may not be able to be secured properly. Do all repairs to the roof base if necessary before beginning. After the roof base is ready and cleaned, you may begin to install the felt underlay. When laying the felt underlay, make sure that the underlay is as flat to the base as possible. Use wood blocks or similar objects to flatten the underlay.



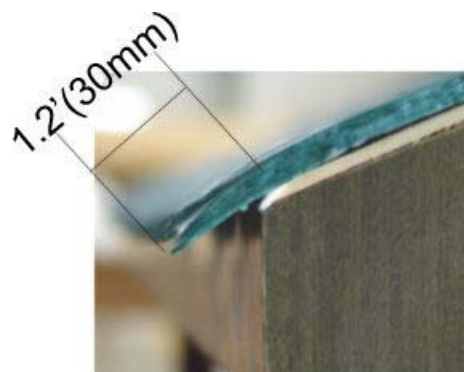
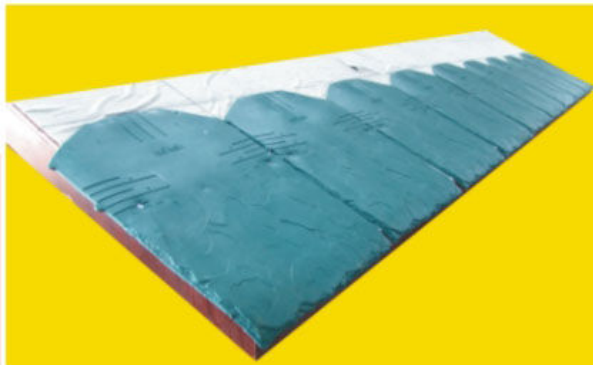
## Step 1:

Installation of all tile shapes and exposure are the same. Please contact one of our Representatives if you require any special installations.

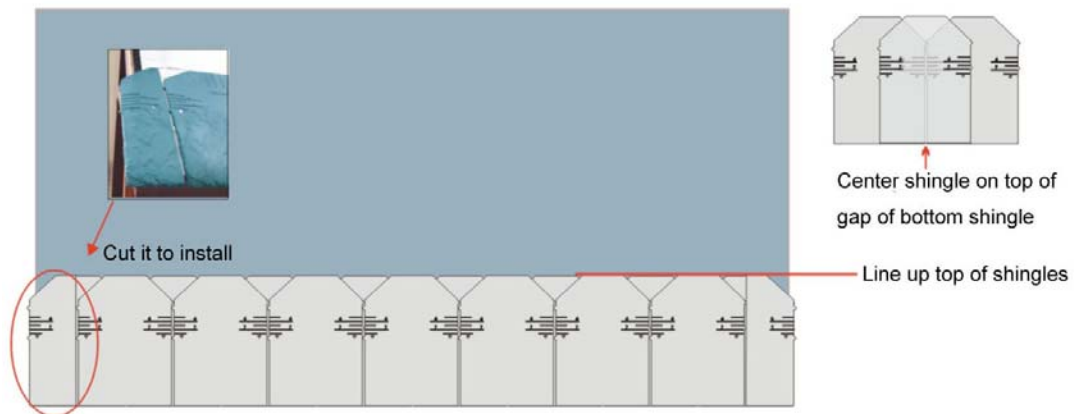


Lay the first row of shingles as a starter course

Actual layout

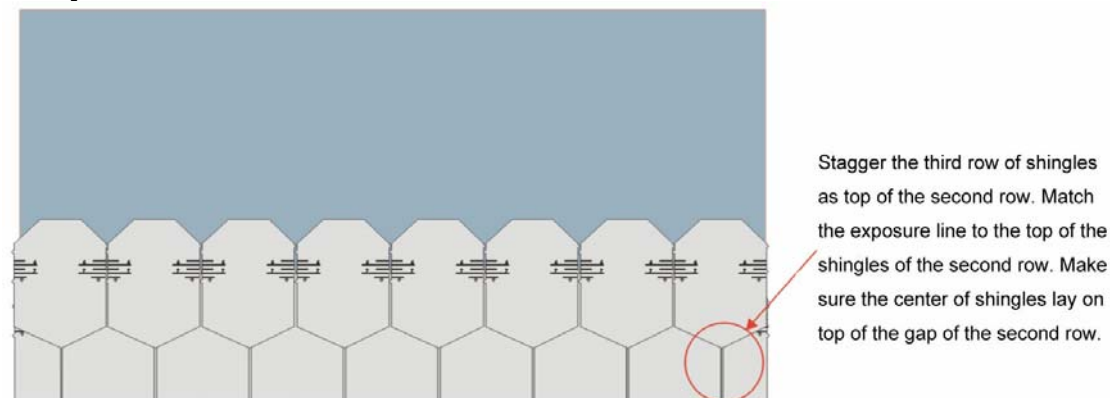


## Step 2:



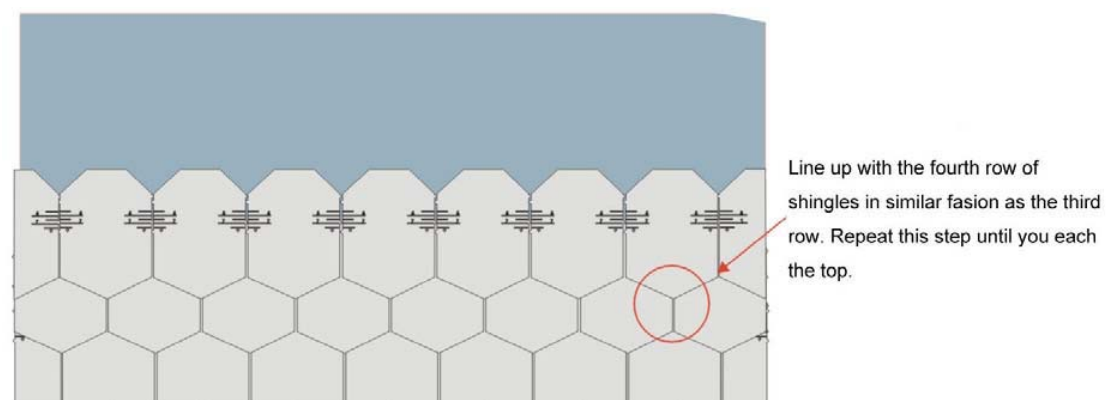
Lay a second row of shingles directly on top of the starter course. Stagger the shingles so that the center of the top shingles lay on top of the gaps of the starter course. At gable end, use a utility knife or saw to cut shingles to size and install as shown in the above picture.

## Step 3:



Note: Avoid "crack on crack"--the gap between two shingles on course should never line up less than 1.5"(38mm) from the gap between two shingles on the course below.

## Step 4:



## Step 5: Hips



Picture 1: Install shingles on to the sides of the hip as shown above.



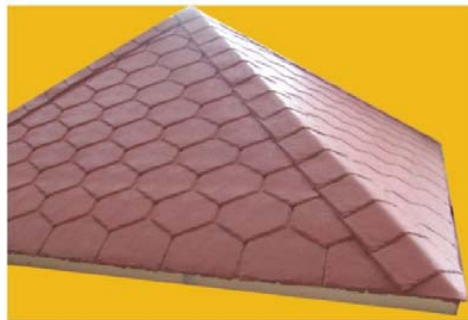
Picture 2: Install the first piece at the bottom of the hip. Cut the top shingle to line up with the other shingles. Mold shingle to the shape of the hip.



Picture 3: Install the next shingle as shown above. Additional nails may be used to firmly secure shingles. Repeat this step until you reach the top.



Picture 4: Typical Ridge is connected to 3–4 hips. At ridges, overlap the top pieces of each hip as shown in above picture.



Picture 5: Final layout

## Step 6: Valleys

### Closed valleys:

We recommend a closed valley system. Copper valley metal, broken in the middle and crimped on the outside edges, is recommended as part of the closed valley system. A minimum 26-gauge-clad steel may also be used if preferred. Tiles should be cut to fit flush with matching course on the opposite side. Wider slates should be used as valley cuts in order to ensure that nailing be kept as far from centre line as possible (at least 5" from centre line). An alternative version of a closed valley uses valley metal with a single narrow-based diverter in the middle. The diverter helps to keep the valley cuts straight and is hidden, for the most part, by the thickness of the tiles. See picture below:



**Open valleys:**

If you prefer open valleys, the copper valley metal broken with a one-inch diverter in the middle and crimped on the outside edges is recommended. A minimum 26-gauge-clad steel may also be used if preferred. In open valley applications, metal should be broken with a diverter at least 1" tall. Tiles should be cut 3" from centre line. Valley metal with twin diverters may also be used as shown below.

