QUICK REFERENCE
FIXING INSTRUCTIONS

Onduvilla tile strips
Part 01: Onduvilla fixing specification
Part 02: Basic fixing details

Note: Consult the Onduvilla design and installation manual and complementary instruction films for comprehensive product, design and fixing information.

Roof terminology

Recommended tool kit

1. Hammer
2. Tin snips
3. Roofers knife
4. Tape measure
5. Spray lubricating oil
6. Straight edge
7. Course bladed hand saw
8. Protective gloves
9. Protective glasses
10. Electric rotary or skill saw
11. Protective hard hat
Roof construction:

**Minimum recommended roof slope**

The minimum recommended roof slope to which Onduvilla tile strips can be fixed is:
- **On fully supporting decked or close boarded roofs:** 9° degrees
- **On treated timber battens (50 x 25 mm minimum size):** 17° degrees

It is recommended that Onduvilla roof tiles should always be laid on an Ondutiss vapour permeable roof underlay membrane.

First calculate the slope of your roof using a protractor to set the fixing specification suitable for your roof from the options detailed below.

Next measure your roof and take note of the Onduvilla materials and tools required to cover your roof including any Onduvilla tile strip system accessories required for your project.

**Onduvilla roof support structure options: Roof deck or tile battens**

**Roof deck fixing specification:**

Onduvilla minimum roof slope when laid on fully supporting roof deck: **9° degrees** or greater.

Onduvilla tile strips are ideally laid on a roof decking laid in strict accordance with relevant British Standards and related Codes of Practice.

**Minimum roof slope decked roofs:** 9° degrees.

**Minimum deck thickness:** 18 mm (Check that the fixings selected do not penetrate the roof deck).

**Note:** An Onduvilla Air vapour permeable membrane should be first fixed below Ondutile tiles laid in accordance with the Ondutiss product and fixing instructions available on line.

**Notes:**

**Caution**
Covering of roofs can be a hazardous operation. All work should be carried out with due regard to Health and Safety regulations relating to working at heights.

**Maintenance**
To ensure long life the roof should be cleared of leaves and debris and gutters cleaned regularly and any overhanging branches cut to avoid contact with the surface of the roof.

**Designers Note**
Refer to the Onduline Design and installation manual for comprehensive design and product information including condensation, vapour control and fire resistance limitations and product terms and conditions.
Onduvilla tiles installation on the roof at Eaves and verge:

Fixing to Eaves
Ensure the tiles are positioned square to the line of the eaves and verge, provide a 5 cm drip edge, then secure either end of the tile (allowing for laps).

Broken bond courses
Fix tiles at the opposite end of the roof from the prevailing winds. Then commence every other tile course with a half tile to form a broken bond tile layout to avoid 4 ply build up at tile edges.

Verge piece fixing - Corrugation
Overlay the tiles with pre-formed Onduvilla verge pieces starting with a corrugation at the verge end of the roof. Starting at the prominent roof sight line, fix by aligning the tile side lap grooves.

Fixing verge to flat section:
Should the verge abutment align with the flat section of the tile first fix a batten 6 cm from the verge and cut and bend the tile end over the batten, then overlay and fix the tile with the verge.

Fixing verge to corrugation
Fix the Onduvilla tiles starting at the end of the building with the most prominent roof sight line. The tiles being fixed with a 5mm overhang from the verge.

Onduvilla file starter course
Create a broken bond tile pattern by starting alternate courses of tiles with a cut length of Onduvilla tile. This avoids a four ply build-up of material at the lap edges and improves the aesthetic of the roof. Cutting the tiles at the corrugation edge.

Cutting starter course
The starter course must be cut tight to the corrugation to avoid the unsecured flat tile section from rising, which compromises both the weathering seal of the tile corrugation; as well as the aesthetic finish of the fixed tiles on the roof.

The correct starter course lap
The tile cut tight to the line of the corrugation ensures the lap is consolidated when the fixing is applied. The lap forming an attractive consistent broken bond tile pattern when viewed from both ends of the roof.

Cutting Onduvilla tiles across width to form tile side laps:

Forming tile corrugation side laps
The unique Onduvilla SealSmart® weathering grooves make the lapping of corrugations easy just lap the corrugations by aligning the preformed grooves. (To avoid cutting tiles along the width the tile lap can be increased).

Cutting starter course

Onduvilla tiles installation on the roof at Eaves and verge:

Undertile verge fixing option:
Alternatively you can use the Onduvilla under tile verge piece system which is laid prior to the Onduviss underlay & Onduvilla tiles up the line of the verge to provide to the inner edge of the verge piece with a trimming batten fixed up the line of the verge. Then simple fix the verges to each purlin using 20 mm Large headed galvanised clout nails.

Fixing verge to flat section
Should the tile terminate on a flat section then simple mark out the verge cut line allowing for a 5mm overhang at the verge. Next remove the tile from the roof and cut the tile on the bench then reinstated and fixed using 20 mm large headed galvanised clout nails.

Fixing verge to corrugation
Fix the Onduvilla tiles starting at the end of the building with the most prominent roof sight line. The tiles being fixed with a 5mm overhang from the verge.
Verge fixing options: Under tile verge piece

Onduvilla verge piece to ridge:
At the ridge first trim the verge piece using tinsnips, if using ridge apron pieces first fix them and overlay with the verge piece before finishing with the ridge closure piece.

Fixing the Slim cap ridge units
Provide a minimum of 10 cm support to the ridge abutment to accept ridge fixings. Then position and fix the two ridge apron pieces, then overlay them with slim cap ridges and fix at each corrugation using a ridge end cap to finish the ridge line.

Fixing ridge piece
Provide support in the roof structure to accept the ridge fixings. This point is dependant on the roof pitch. Then mark a fixing line on the roof lay the ridges with a minimum of 20 cm end lap and fix at each corrugation, ridge accessories are available to enhance performance.

Cutting with hand saw
Use a course bladed handsaw to cut Onduline sheets, apply spray lubricating oil onto the saw to avoid the saw teeth from binding with bitumen.

Cutting with circular or skill saw
Support the sheet either side of the line to be cut taking care to allow the safe operation of power rotary circular or skill saw in accordance with the manufacturer's instructions.

Cutting with tinsnips
First mark out the sheet or Onduline accessory and cut with an oiled pair of tinsnips to form detailed shapes in the Ondutile tiles and accessories.

Fixing the Slim cap ridge units
Provide a minimum of 10 cm support to the ridge abutment to accept ridge fixings. Then position and fix the two ridge apron pieces, then overlay them with slim cap ridges and fix at each corrugation using a ridge end cap to finish the ridge line.

Fixing ridge piece
Provide support in the roof structure to accept the ridge fixings. This point is dependant on the roof pitch. Then mark a fixing line on the roof lay the ridges with a minimum of 20 cm end lap and fix at each corrugation, ridge accessories are available to enhance performance.

Onduline apron fixing
Use Onduline pre-formed apron flashing to seal end wall abutments, lay the upstand against the wall and fix the front apron at each corrugation.

Side wall abutment
Metal or Onduband flashing tape is used to seal the side wall abutments with a 7.5cm upturn against the wall, with a separate wall cover flashing.

Hip and ridge fixings
Set the hip abutment roof structure to accept the Onduvilla standard ridge fixings. Then fix hip trimming battens and boards to accept the ridge fixings.

Ondulliss roof underlays:
Onduvilla is resistant to the build up of condensation. However any single thickness roofing material is at risk of condensation formation during the winter months. Generally air movement generated by the installation of high and low level ventilation will reduce this risk. Onduline Ondulliss underlays and ventilation accessories will significantly assist with in this provision.

www.onduline.co.uk

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