Onduline Classic sheets

Part 01: Onduline fixing specification
Part 02: Basic fixing details

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

**Roof terminology**

- **Ridge**
- **Valley**
- **Hip**
- **Verge**
- **Barge board**
- **End wall abutment**
- **Side wall abutment**
- **Fascia board**
- **Roof decking**
- **Purlins / battens**
- **Eaves**

**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**
Basic fixing instructions:

Follow three steps to create an attractive, long lasting roof on your building:

1: First measure the slope of your roof.
   Use this knowledge to select one of the three options.

2: Select the option matching the slope of your roof.

3: Fix the roof structure and secure Onduline roofing sheets.
   Use the details described in your selected option to construct the roof support structure and lay the sheets with correct sheet laps and fixings.

---

**Roof Slopes of: 15° degrees or greater** (Gradient: 1 in 4 or higher) **Option 1**

- Support below sheet: Fix to Purlins at 61 cm (24") centres (max).
- Onduline sheet fixing specification:
  - Corrugation side lap: One
  - Sheet end lap: 17 cm
  - Nails or screws per sheet: 20

---

**Roof Slopes of: 10° to 15° degrees** (Gradient: 1 in 6 to 1 in 4) **Option 2**

- Support below sheet: Fix to Purlins at 45 cm (18") centres (max).
- Onduline sheet fixing specification:
  - Corrugation side lap: One
  - Sheet end lap: 20 cm
  - Nails or screws per sheet: 20

---

**Roof Slopes of: 5° to 10° degrees** (Gradient: 1 in 11 to 1 in 6) **Option 3**

- Support below sheet: Fix on fully supporting roof deck (20 mm min).
- Onduline sheet fixing specification:
  - Fully supporting roof deck
  - Corrugation side lap: Two
  - Sheet end lap: 30 cm
  - Nails or screws per sheet: 20
To get the best from Onduline sheeting it is essential to fix it in accordance with the fixing instructions.

Follow these fixing details and create an attractive, durable, low-maintenance roof on your building.

1. Setting Out
Purlins must be of sufficient section to give support between the rafters. Set purlin centres as detailed on the left, use spacers to keep the purlins square.

2. Cutting
First mark out the sheet then cut with an oiled coarse-toothed handsaw or preferably a power saw.

3. Cutting up corrugation.
First mark cut line in base of the sheet corrugation, next cut along the line and fold back the sheet along the cut / scored line to separate the sheet into two sections.

4. Sheet fixings
Only use Onduline plastic PP Monobloc or Safetop nails; or Onduline Universal screws; alternatively Safetop washers and cap assemblies can be used with proprietary screws.

5. Nailing or screwing
Nail sheets every corrugation at the eaves and sheet overlaps and either side of vertical joints. Nail every other corrugation on intermediate purlins.

6. Eaves Detail
The maximum sheet overhang at the eaves is 5 cm. Reduce the distance of the first purlin from the fascia accordingly.

7. Eaves Tray
Developed for the use with the Oversheeting & Ondutile systems, the tray can also be used to reduce sheet overhang at the eaves in situations such as width restricted box gutters.

8. Eaves Ventilator Strip
Fixed to the eaves purlin it stops ingress of birds and large insects, whilst allowing free airflow.

9. Corrugation Filler
Seals corrugations at eaves and ridge from penetration of the sand and dust into the roof space.

10. Ridge Unit Fixing
Fit ridge board and support purlin. Fix second purlin, its position being dictated by the roof pitch. The sheet/ridge can then be fixed.

11. Ridge Unit Fixing
Start fixing the ridge at the opposite end of the roof from the prevailing winds align weathering grooves to form a 22 cm overlap, secure at every other corrugation.

12. Hip Detail
Fix hips before ridge. Lay support boards and trimming purlins. Nail ridge units to trimming purlins, cut and dress units and overlay with ridges.

13. Verge Fixing
Fasten timber barge board level with the top of finished Onduline roof. The Onduline verge units are then overlaid and nailed into position.

14. Verge Fixing
Alternatively, fix barge board level with the underside of the Onduline corrugation and overhang corrugation. Fold down and nail in position.

15. Side Wall Abutment
Form side wall flashing to Onduline roof, using Onduline flashing tape or similar and fix separate cover flashing to the wall.
16. Abutment Flashing
Use Onduline pre-formed apron flashing to seal end wall abutments. Use separate cover flashing to the wall to allow for movement.

17. Valley Lining
Fix valley boards/trimming purlins and lining using either Onduline, metal, or GRP performed liner units. The vertical valley depth should be a minimum of 7.5cm.

18. Roof Ventilator
Onduline roof ventilators are available in two sizes to provide increased ventilation. They should be used on buildings with high humidity. Simply lay unit into sheet and nail in position.

19. Roof Window
Provides illumination and ventilation but does not reduce the thermal insulation performance of the roof. Cut opening in sheet and nail into position.

20. Curved Roof Detail
The peak of the curve must be supported on 12mm plywood sheet layed over purlins, with double corrugation side lap and 30cm end lap, purlins on side walls revert to 61cm with ventilation provision.

21. Roof Lights
Onduline Plastics roof lights are easily fixed for natural illumination. Refer to the They require pre-drilling before nailing into position.

22. Sheet Layout
Start fixing sheets at the opposite end of the roof from prevailing winds. Cut a sheet in half vertically (ref drawing 3) to start alternate sheet courses forming a broken bond sheet pattern.

23. Identify the top of sheet
Roof Take care to fix Onduline sheets the correct way up, the underside is easily identified by its dimpled rough surface finish, whilst the top of the sheet has a smoother surface finish.

Caution
Covering of roofs can be a hazardous operation. All work should be carried out with due regard to health and safety regulations.

Maintenance
To ensure long life the roof should be cleared of leaves and debris and gutters cleaned regularly.

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.

Onduline roof underlays:
Onduline 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 avoid this problem. Onduline Ondutiss underlay and ventilation accessories will assist with in this provision.