

Onduline

Bituminous Corrugated Roofing System



Onduline

Onduline is an extremely tough, lightweight, corrugated roofing and wallcladding material manufactured utilising a base board produced from recycled cellulose fibres which is saturated with bitumen under intense pressure and heat.

Onduline sheets are finished with a colour pigment and resin impregnation process which “stains” the colour into the sheet to provide excellent colour retention properties and enhanced U.V. resistance.

The Onduline range is ideal for a wide range of applications reflecting the materials unrivalled versatility being used for agricultural, industrial, light domestic and environmental projects and is the only bituminous corrugated sheet suitable for use on the patented Ondutile tile underlay system.

Originally developed in Europe over 60 years ago, Onduline is now extensively used worldwide in over 130 countries from the Tropics to the Arctic Circle. This experience and commitment to continuous product development has resulted in Onduline becoming the worlds largest manufacturer of bituminous corrugated sheets and the professionals first choice.



Onduline benefits

- BBA Product Certification
- Easy to cut, shape and fix
- 15 year insurance-backed water proofing guarantee*
- Excellent colour retention properties
- Withstands windspeeds of up to 120mph (192 kph)
- European CE Declaration of Conformity
- High insulation and sound absorbency performance
- Does not rust, rot or become brittle
- Available in 4 environmentally sensitive colours
- Flexible, ideal for renovation projects

Onduline Roofing Sheets



Dimensions

length: 2,000mm width: 950mm
cover width: 855mm thickness: 3mm
corrugation width: 95mm
corrugation height : 38mm
weight of material: 3.3kg/m²
weight per sheet: 6.4kg
thermal resistance R value: 0.04mK/W
thermal conductivity: 0.066W/mk

*Terms and conditions apply

Onduline roofing sheets are easily identifiable by the printed I.D. branding across the dappled underside of the sheet and production quality control information applied down the last corrugation on the topside.

Product Specification

BBA & European CE Certification

The professional grade Onduline sheet now benefits from both BBA and European CE Declaration of Conformity. Onduline is manufactured in compliance with European Construction Products Directive 89/106/CEE EN544 corrugated bitumen sheets.

Wind Speed

With the predicted increase in gale force winds in the UK it is reassuring to know that Onduline sheets are independently tested and proven to withstand wind speeds up to 120mph / 192kph. (Tested at Yarsley Research Centre UK).

Quality Insurance

Onduline is fully committed to quality control in compliance with the requirements of ISO 9002 standard. Our ongoing product development ensures our market leading status.

Lightweight

Weighing only 6.3kg per sheet Onduline puts minimum loading stress on roof timbers. This makes it particularly suited for roofing onto lightweight pitched roof structures and renovation projects.

Technical Note

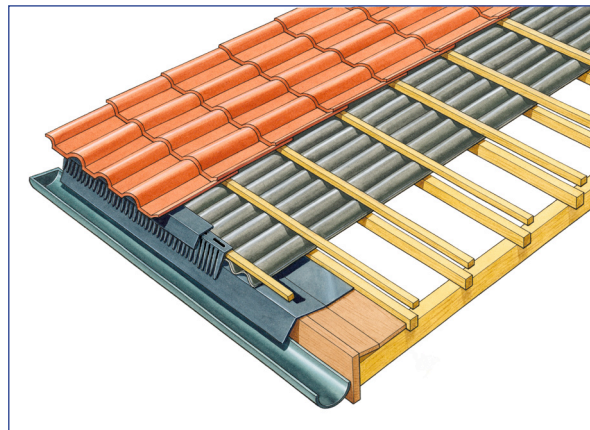
Onduline sheets are not classified to External S.AA fire rating as required in UK Building Regulations for some classes of structure. In these cases they must be fixed on a fully supporting roof deck and the sheets coated with a proprietary AA surface paint treatment applied in accordance with the paint manufacturers instructions.

Maintenance

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



Onduline Systems

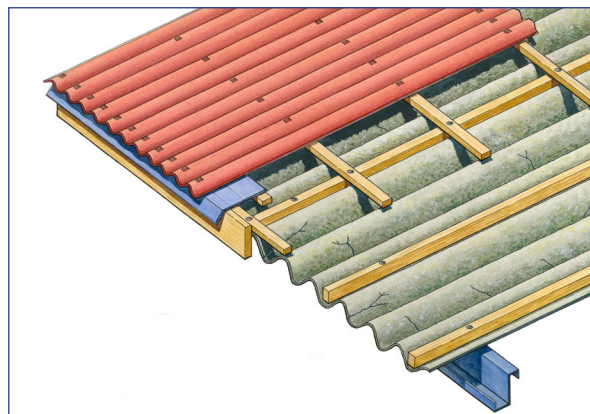


Ondutile System

Onduline sheets are also used as part of the Ondutile under-roofing system providing a secondary weatherproof roof below the primary roof tile or slates. This allows them to be used below the tile manufacturers minimum recommended roof pitch. In addition Ondutile enhances ventilation and improves sound and thermal insulation of the roof ([full details in the Ondutile leaflet](#)).

Minimum Recommended Roof Pitches:

Interlocking concrete tiles:	12.5° Degrees
Pantiles, natural and fibre cement slates:	17.5° Degrees
Plain double lap tiles:	22.5° Degrees



Oversheeting System

Onduline sheets being light and flexible are the ideal material for oversheeting existing deteriorated roof coverings. This is often the most economic, practical and safe solution to the problem of renovating old roofs ([full details in the Oversheeting leaflet](#)).

Oversheeting reduces to a minimum the disruption to a buildings function and allows the thermal and vapour control characteristics of a roof to be up graded to improve the environmental performance of the building to conform to the latest energy conservation requirements.

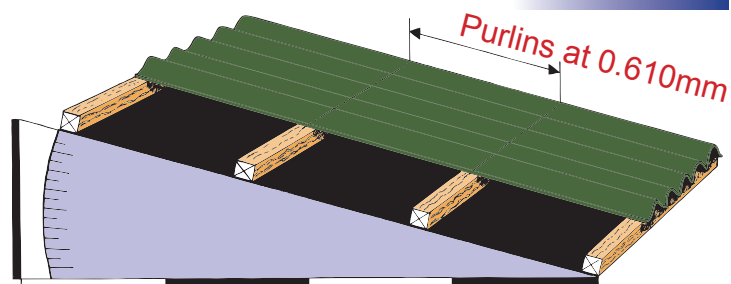
Fixing Specification

It is essential that Onduline sheets are laid in accordance with the instructions set out in the tables below, if not, the performance of the sheets will be significantly reduced.

1. Establish the pitch of the roof to be covered (consult the tables below).
2. Fix the purlins at required centres, or overlay purlins (maximum centres 610mm) on a fully supporting 12mm decking as directed below.
3. Note the sheet end and corrugation side laps required and lay the Onduline sheets accordingly as detailed below.
4. Use the correct number of Onduline Safetop or PE nail fixings per sheet. Nailing every corrugation at the eaves, sheet end laps, and the ridge. Then alternate corrugations on the intermediate purlins, nailing the corrugations either side of the side laps.

(Full details in the Onduline Fixing Guide leaflet).

For Roof Pitch: 15° and over



Gradient: 1 in 4 or less

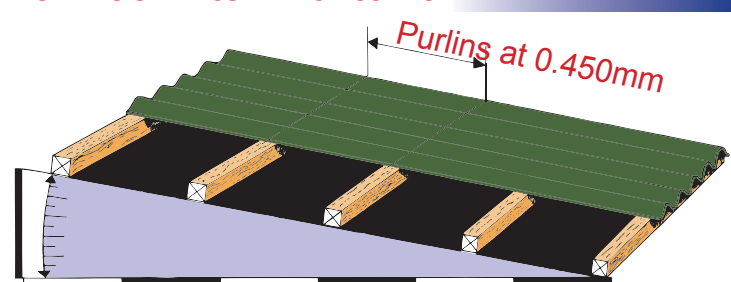
Support: Purlins fixed at maximum span of 610mm.

End Lap: 170mm

Side Lap: 1 Corrugation

Fixings: 20 per sheet

For Roof Pitch: 10° to 15°



Gradient: 1 in 6 to 1 in 4

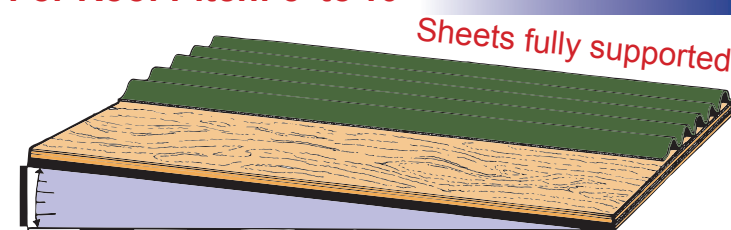
Support: Purlins fixed at maximum span of 450mm.

End Lap: 200mm

Side Lap: 1 Corrugation

Fixings: 25 per sheet

For Roof Pitch: 5° to 10°



Gradient: 1 in 11 to 1 in 6

Support: Decking laid on purlins with maximum span of 610mm.

End Lap: 300mm

Side Lap: 2 Corrugations

Fixings: 20 per sheet



Building Design: Condensation

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, the installation of high and low level ventilation will reduce this problem. A range of Onduline ventilation accessories will help in this provision. The risk of condensation can be significantly reduced by fixing an Ondutiss underlay membrane and plywood decking over the support purlins. This is particularly important on buildings with high humidity levels. Insulation can also be easily incorporated to create a warm roof construction, requiring a vapour barrier laid below the insulation with at least a 38mm ventilation channel formed between the insulation and the Onduline sheet. It is advisable to contact our Technical Department for further information.

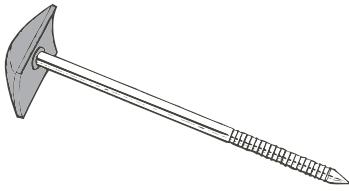
Timber Purlin Design

Timber purlins should be of sufficient section to support the roof loadings. The design schedule set out in the table below gives suggested minimum timber sections for roof pitches over 15° including allowances for normal snow loadings.

Span (m)	Typical timber section sizes for treated softwood purlins (on roof pitches above 15°) (mm)
0.450	38 x 25
0.610	50 x 50
2.4	38 x 75
3.0	38 x 100
3.6	38 x 125
4.2	44 x 150
4.5	50 x 150
4.8	50 x 160
5.4	63 x 175
6.0	63 x 200
6.6	75 x 200

Note: This table is prepared as a guide only in consultation with TRADA, the British Timber Research and Development Association. However, design requirements can vary according to roof layout and building regulations. Accordingly professional advice should always be sought for specific roof design.

Accessories



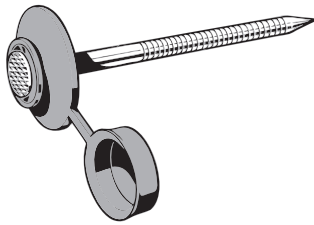
PE Nails

Specially designed UV resistant P.E. headed nails with zinc plated corrosion resistant shanks. Available in black, red, green and brown.

Material Specification:

Length: 73.5mm (overall) **Diameter:** 3mm

Packing: Packs of 400.



Safe Top Nails

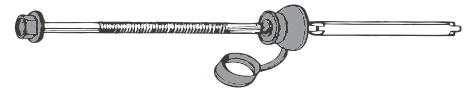
The safe top bonded washer is resistant to UV radiation and with its weatherproof seal provides a superior resistance to wind uplift.

Available in black, red, green and brown.

Material Specification:

Length: 75mm (overall) **Diameter:** 3.55mm

Packing: Packs of 100.



Stelfix Steel Drill Screws

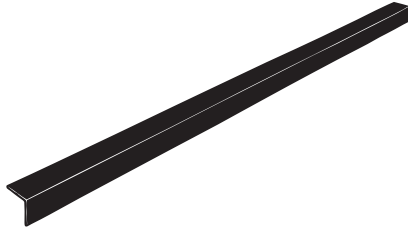
For fixing to steel purlins using a power drill.

The self-tapping screw has a PVC washer and a split sleeve to prevent the sheet riding up on the thread. It enables correct tension to be achieved avoiding over tightening and distortion.

Material Specification:

Length: 65mm **Diameter:** 5.5mm

Packing: Packs of 100.



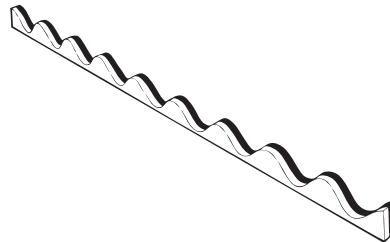
Batten Cloaking Piece

Designed for the Onduline system and used in conjunction with the Eaves Ventilator Strip, it protects the eaves batten from possible water ingress whilst also providing an aesthetically pleasing finish to the eaves detail.

Material Specification:

Length: 1.22m (1.12m cover width)

Width: 55mm x 55mm for 25mm battens



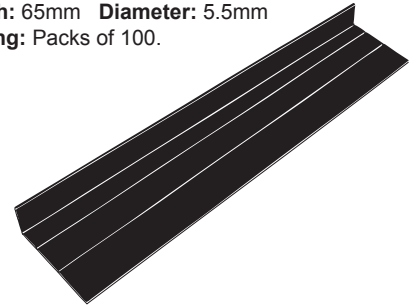
Corrugated Fillers

Designed to match the Onduline profile, these polyethylene units seal the corrugations at eaves and ridge, preventing the ingress of water, dust and draughts.

Material Specification:

Length: 855mm (cover width of sheet) Onduline Profile

Packing: 100 per box



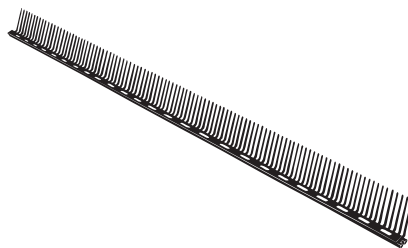
Multi-Purpose Eaves Tray

Manufactured in a flat UPVC sheet with pre-formed fold lines to form a 75mm or 100mm drip edge into the gutter. It is used for Onduline, Onduline and Oversheeting roof systems.

Material Specification:

Length: 1.275m **Coverage:** 1.125m **Lap:** 150mm

Width: 300mm

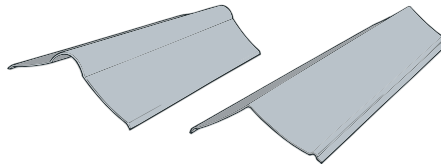


Multi-Purpose Ventilator Strip

The Ventilator Strips are used to allow ventilation into the roof space whilst preventing the infiltration of birds and large insects into the eaves. They are secured by nailing with galvanised round headed nails.

Material Specification:

Length: 1000mm



Ridges and Verge Units

Manufactured from the same material and to the same high specification as Onduline sheets. Flexible double wings accommodate a wide range of roof angles. Available in the four Onduline colours - black, red, green and brown.

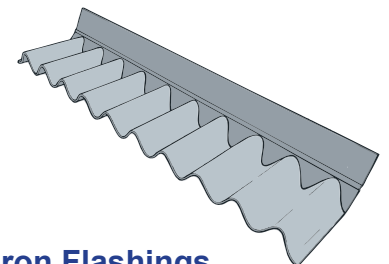
Material Specification:

Length: **Ridge:** 900mm (775mm cover length)

Verge: 1100mm (975mm cover length)

Width: (flat) **Ridge:** 500mm

Verge: 410mm

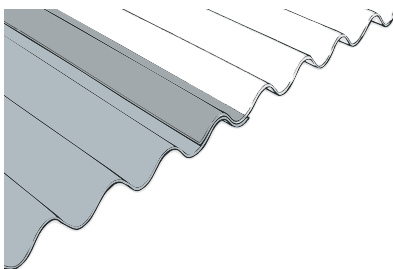


Apron Flashings

The apron flashings are designed to seal the gap between Onduline sheets and vertical wall abutments. Suitable for any pitch of roof.

Material Specification:

Length: 930mm nominal length (835 cover width) Onduline Profile

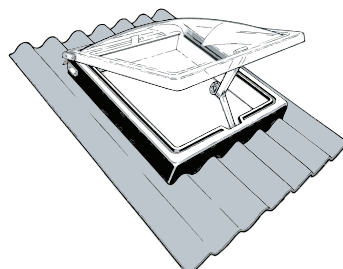


PVC Onduline Profile Sheets

Available in two forms - "glass clear" transparent to provide optimum clarity and light transmission and translucent for use where diffused lighting is required. Manufactured to the same size and profile as Onduline corrugated sheets, they provide a simple, economical way of gaining light through the roof.

Material Specification:

Length: 2000mm **Width:** 950mm



Roof Light Window

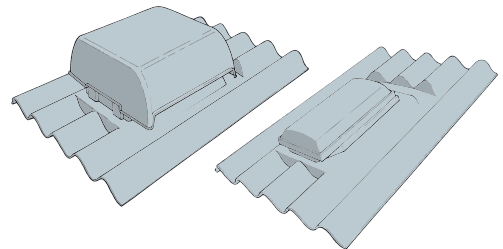
The Onduline skylight/roof window provides light and air to the roof and also serves as an exit to roof areas. Modern design prevents infiltration of snow and rain. Quick and easy to install.

Material Specification:

Base length: 890mm **Base Width:** 660mm

Height: 150mm **Thickness:** 3mm

Light Area: 360 x 420mm



Roof Ventilators

A range of easy-to-fix roof ventilators designed specifically for use with Onduline sheets to provide an aesthetically pleasing appearance. They have low air resistance while preventing access by driving rain and snow.

Material Specification:

Free Air Space (WG33): 33,000mm²

Free Air Space (G3): 10,000mm²

Supply

Onduline Roofing System is available from stock through authorised distributors. A complete list can be obtained on application. For bulk delivery please contact Onduline Building Products Ltd Sales Office direct.

Application

Onduline roofing systems must be laid in strict accordance with the relevant Fixing Guide, Ondutile and Oversheeting literature and maintained as directed therein.

Onduline Literature

Contact our sales office to obtain copies of the Onduline fixing guide, Ondutile, Oversheeting and Accessories leaflets.

Alternatively visit our web site: **www.onduline.net** click on Downloads > Onduline> and then select the required leaflet by clicking on 'printed copy' to obtain a PDF leaflet immediately.

Caution

Covering of roofs can be a hazardous operation. All work must be carried out with due regard to health and safety regulations as set out in HSG33 (Roof work).

Guarantee

The Onduline system is guaranteed to remain weatherproof for fifteen years when fixed and maintained in accordance with the fixing instructions. The guarantee is limited after five years service to the pro-rata replacement value of the Onduline materials set against the service life measured in annual increments and does not extend to labour, related construction or third party costs.

Note

The information in this brochure is correct at the time of printing but the manufacturers reserve the right to vary specifications at any time.

