

Roofing Systems

Ondutite Roof Undersheeting

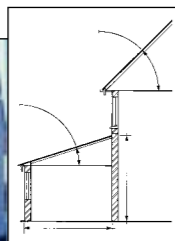
Onduline sheets are used in the patented Ondutite roof underlay system, to provide a secondary weatherproof membrane to improve the sound and thermal insulation of the roof and allow low pitch applications for tiles and slates.



Major benefits

- Reduced roof pitch
- Immediate weather protection
- Improved ventilation
- Increased thermal insulation
- 27% increase in sound insulation
- Reduced risk of consequential damage to the building

The minimum pitches/laps for tiles are normally specified by the manufacturer with reference to BS5534, Part 1 Design 1990. There are design situations, however, when these specifications cannot be attained as shown below. Here the window line of the main building restricts the roof pitch of the extension. The use of Ondutite allows the same tile as used on the main roof to be used on the extension at a pitch below the manufacturer's recommended minimum. For detailed information on the system ask for the Ondutite leaflet.



Onduline Oversheet System

Oversheeting with Onduline is often the most economic, practical and safe solution for the renovation of old and deteriorating roofs. It is an adaptable system ideally suited to a wide variety of roof construction types.



Major benefits

- Low cost
- Minimum disruption to interior of building during re-roofing
- Virtually maintenance-free
- Improved thermal and sound insulation
- Reduced risk of condensation
- Simple and quick installation

For detailed information on the system ask for the Onduline Oversheet leaflet.

Caution

Covering existing fragile corrugated roofs is a specialist operation. All works should be carried out with due regard to all Health and Safety Regulations.



Supply

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

Installation and pricing

A detailed fixing guide and price list can be obtained from the address below.

Technical services

A comprehensive technical advisory service with laboratory testing facilities is available for all Onduline applications.

Onduline in action



Business park converted from farm buildings



Domestic garage

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 Health & Safety Guide 33 (Roof work).

Conditions of use

Although the colouring process used in the manufacture of Onduline is long lasting as with similar natural roofing materials it is subject to the effects of weathering. Onduline International will not be responsible for the effects of structural movement.

The information contained in this brochure is correct at the time of printing but the manufacturers reserve the right to vary specifications at any time. Goods are not tested or sold as fit for any particular purpose unless it has been agreed in writing. There may be slight variations in the size and weight of each sheet.



Leisure Centre



Greenwood Trust lecture rooms

Other products from Onduline International

Ondutite roof underlay system • Ondusteel profiled steel tile strip • Bardoline bituminous tile strip • Bituline torch-on membranes
Fondaline damp-proofing membranes • Onduline plastics - PVC and polycarbonate roofing sheets For details contact our Technical Sales Department.

Onduline

Onduline Building Products Limited

Eardley House, 182-184 Campden Hill Road,
Kensington, London W8 7AS.
Tel: 020 7727 0533
Fax: 020 7792 1390
E-mail: enquiries@onduline.net
www.onduline.net

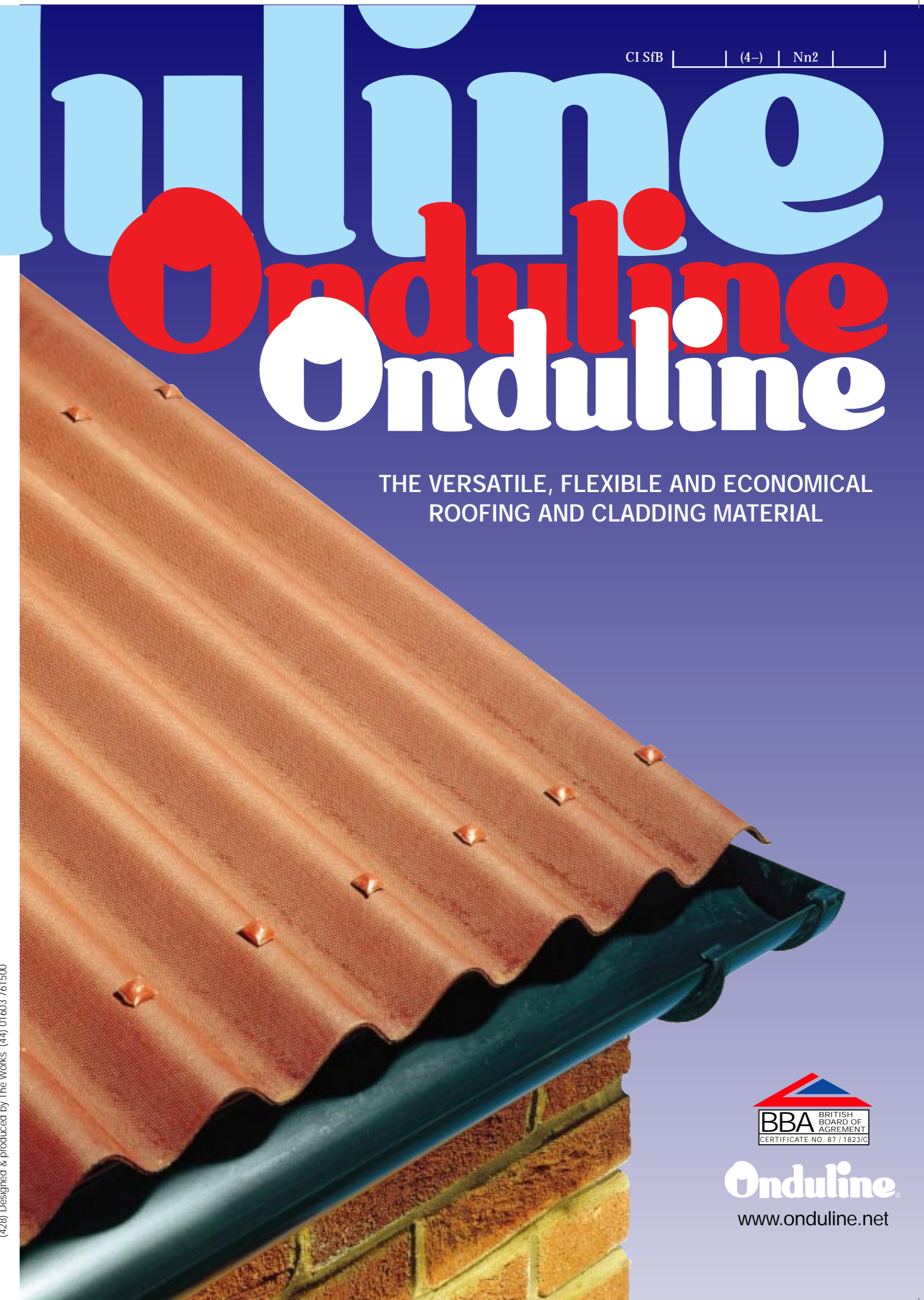
A member of the international Onduline Group



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Onduline
www.onduline.net

Onduline®

Corrugated roofing sheets

Onduline is an extremely tough, lightweight, corrugated roofing and wall-cladding material manufactured from bitumen-saturated organic fibres under intense pressure and heat.

Originally developed in Europe over 50 years ago, Onduline is now extensively used in agriculture, light industrial and domestic applications in over 100 countries from the tropics to the Arctic Circle.

Onduline is manufactured from a homogeneous base sheet ensuring even penetration of the bitumen asphalt. This produces a sheet of high dimensional stability that cannot de-laminate.

Colour stability is also ensured through a unique pigmentation process which "stains" the colour into the sheet. Compare this to the painted finish on lower grade products with the risk of surface peeling and resulting colour loss.

Onduline offers these major benefits:

- Easy to cut, shape and fix
- Does not rust or become brittle
- Colour impregnation minimises colour loss
- Needs virtually no maintenance
- High insulation and sound absorbency qualities
- Withstands windspeeds up to 120 mph
- 15 year insurance-backed waterproofing guarantee
- BBA certification
- Available in 4 environmentally sensitive colours
- Full range of accessories

Energy and cost savings were achieved using Onduline roofing sheets for this award-winning building at the Dvfl Eco Park in North Wales



Easy to fix

Onduline is light and safe to handle and fix. The sheets can be cut with a hand or power saw and fixed with a hammer. A range of accessories is available to facilitate fixing and to enable a professional finish to be achieved without the need for special tools or skills.



Durability

Onduline is extremely durable. It will not rust or become brittle, ensuring a long trouble-free life with the minimum of maintenance. The photograph below demonstrates the weathering qualities of Onduline. The picture was taken soon after the completion of an extension to the building (seen right). Compare this roof with that on the left, constructed 20 years previously.



Lightweight

At only 6.3kg per sheet Onduline puts minimum stress on roof timbers. It is therefore ideal for lightweight pitched roof structures and for oversheeting damaged mineral felt roofs and old deteriorating corrugated roof coverings.

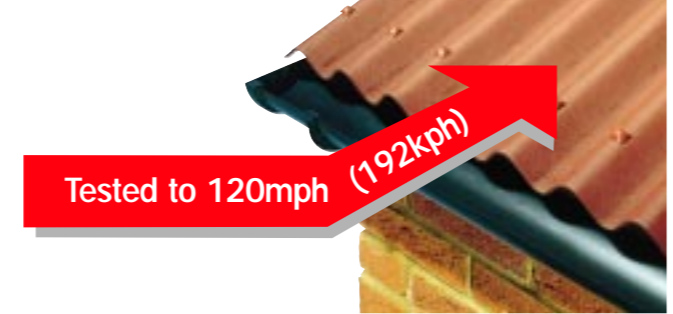
Flexibility

Onduline is a flexible material making it ideal for fitting to old and distorted roof structures. It can also be used on curved roofs.



Wind resistance

In a gale the most vulnerable part of a building is the roof. Tests carried out at the Yarsley Research Centre (UK) and in Miami and Metropolitan Dade County (USA) have proved Onduline suitable in hurricane and earth-quake conditions.



Quality insurance

Onduline has BBA certification meaning that its quality and specification have been approved by the British Board of Agrément. It is also approved by most of the world's assessment authorities. As manufacturers we also provide a 15 year insurance-backed waterproof guarantee but experience gained over 50 years confirms that the life expectancy of Onduline is much longer than this.



Product Specification

Onduline sheets are made from organic fibres saturated with bitumen and formed under intense pressure and heat. This produces a homogeneous sheet with high dimensional stability that cannot delaminate.

Dimensions	
Length (overall)	2000mm
Width (overall)	950mm
Thickness (nominal)	3mm
Corrugation width	95mm
Corrugation height	38mm
Material weight (nominal)	3.3kg/m
Sheet weight (nominal)	6.4kg
Thermal resistance	R value 0.04mK/W
Thermal conductivity	0.066W/mk

The Onduline colour range

Colour stability is provided through a unique pigmentation process that 'stains' the colour into the sheet.

Colour availability:



Onduline Roof Design

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 ventilation accessories will assist in this provision. The risk of condensation can be significantly reduced by fixing an Ondutiss underlay membrane below the Onduline sheets. This is particularly important on buildings with high humidity levels.

Insulation can also be easily incorporated to create a warm roof construction. It is advisable to contact our Technical Department for further information.



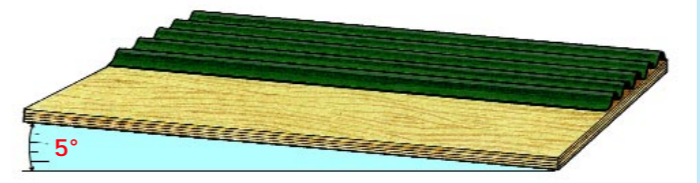
Support Structures

It is essential that the correct support be given to Onduline sheets. Follow these steps to avoid problems,

1. Establish the pitch of your roof (see illustrations and tables below).
2. Check if a decking is required, or at what centres the purlins should be fixed. **It is important not to exceed the figures shown.**
3. Note the sheet end and corrugation side laps required.
4. Check number of fixings required per sheet and apply in accordance with Onduline Fixing Guide.

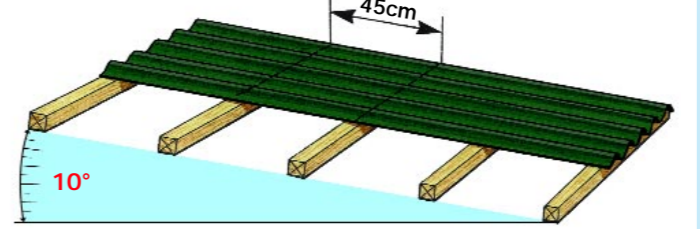
Note: The section of the decking and purlins should be of sufficient size to support the weight of the roof and will be determined by the distance between rafters.

FOR ROOF PITCH: 5° to 10°



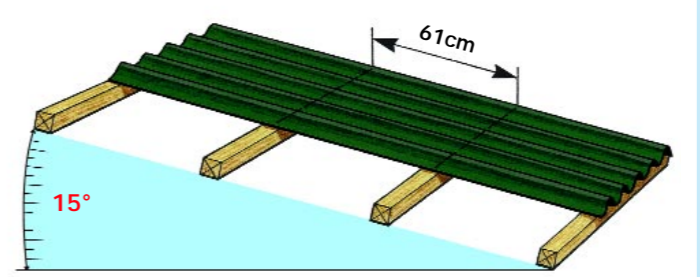
GRADIENT: 1 in 11 to 1 in 6
SUPPORT: Decking or close boarding.
END LAP: 30cm
SIDE LAP: 2 corrugations
FIXINGS: 25 per sheet

FOR ROOF PITCH: 10° to 15°



GRADIENT: 1 in 6 to 1 in 4
SUPPORT: Purlins at 45cm centres
END LAP: 20cm
SIDE LAP: 1 corrugation
FIXINGS: 25 per sheet

FOR ROOF PITCH: 15° and over



GRADIENT: 1 in 4 or less
SUPPORT: Purlins at 61cm centres
END LAP: 17cm
SIDE LAP: 1 corrugation
FIXINGS: 20 per sheet

An Onduline roof is very easy to fix, but to get the best results, construction should be carried out in accordance with the comprehensive Onduline Fixing Guide. This is available from distributors or direct from our Technical Sales Department.



Accessories



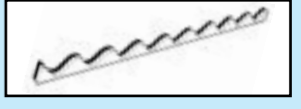
PE Nails
 Specially designed with UV resistant PE heads to match sheet colours and zinc plated corrosion resistant shanks.



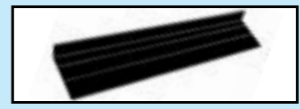
Safe Top Nails
 With UV resistant bonded washer with waterproof seal gives superior resistance to wind uplift. Colour coded to match sheets



Stelfix Screws
 Self tapping screw with PVC washer - for fixing to steel purlins using a power drill. Colour coded to match sheets.



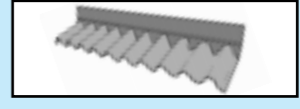
Corrugated fillers
 Matching the Onduline profile these polyethylene units seal the corrugations at eaves and ridge.



Multi-purpose Eaves Tray
 Used below the sheets at eaves on existing decked roofs to allow overhang to be reduced. Also used in Ondutiss and Onduline Oversheet systems.



Ridge and Verge Units
 Manufactured from the same material specification as Onduline sheets to fit all angles. Available in black, brown, red and green.



Apron Flashings
 Designed to seal the gap between Onduline sheets and vertical wall abutments.



Multi-purpose Ventilator Strips
 Allows ventilation into roof space whilst preventing infiltration of birds at eaves.



Roof Ventilators
 Designed specifically for use with Onduline sheets. Easy to fix with low air resistance while preventing access to driving rain and snow.

Also available

- Pipe Adaptors - for use with Roof Ventilators
- Flexible Pipe - for use with above
- Roof Light window
- PVC Onduline Profile Sheets for economical roof lighting

Full details are included in the Onduline Accessories and Components leaflet available from our Technical Sales Department.