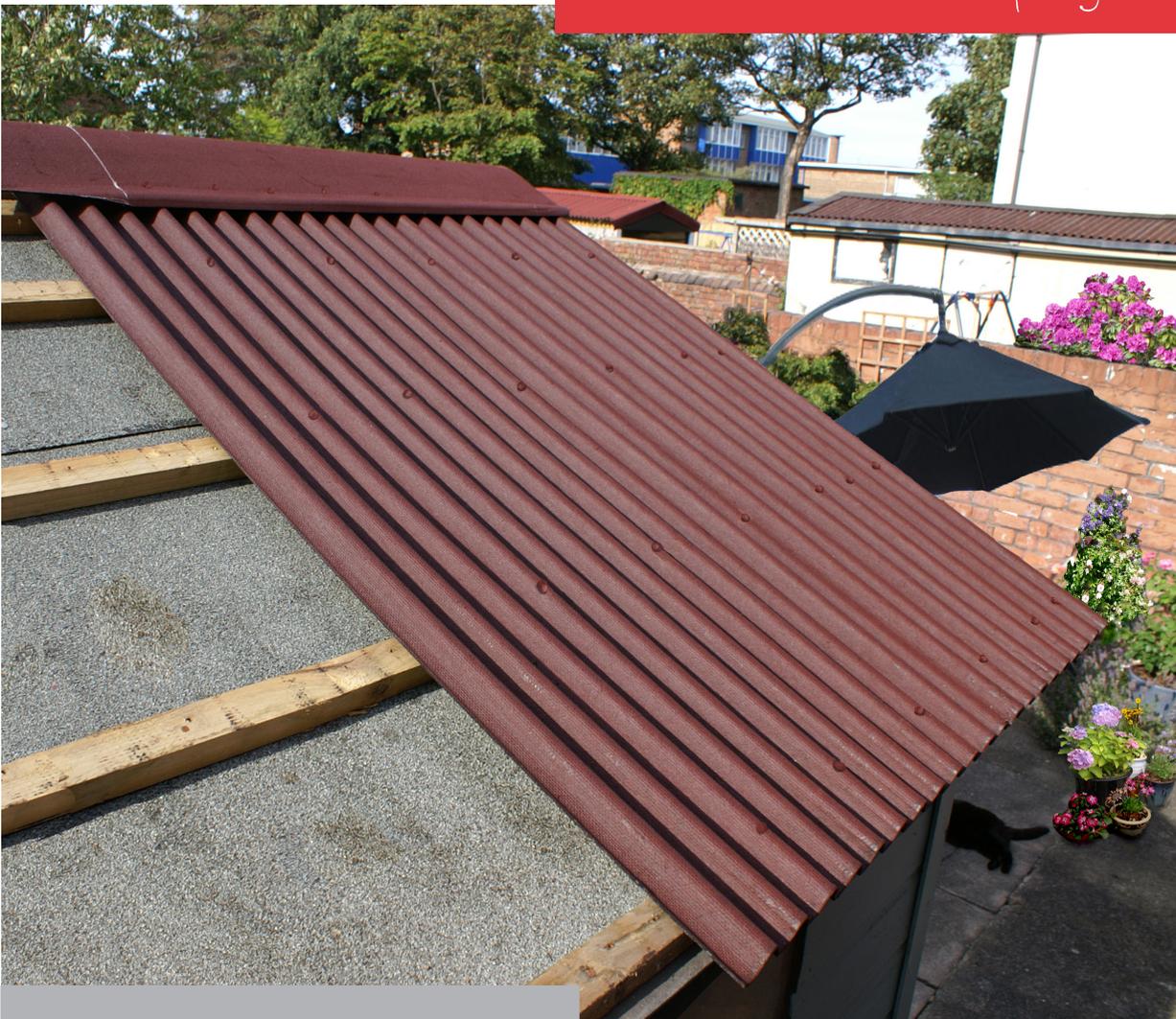


ONDULINE MINI 18[®]



The stylish 'Do it Once' roofing upgrade for your garden buildings

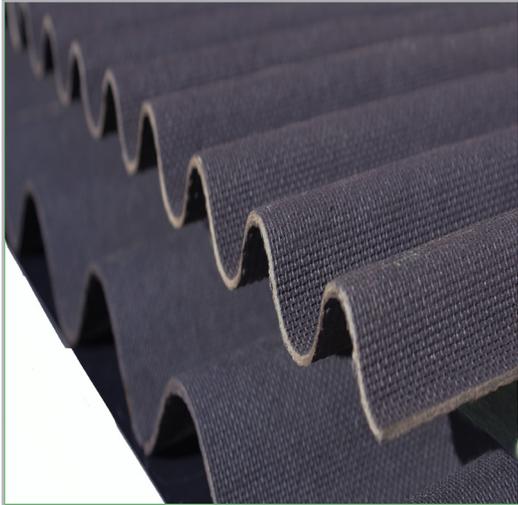
*Exciting new low profile
Proven durability
Low maintenance roofing*



Onduline[®]

www.onduline.co.uk

ONDULINE MINI 18®



Onduline Mini 18 sheets are designed to enhance the style of garden timber frame buildings. The low profile compliments the scale of all sheds, summer houses, childrens play houses, workshops and garages as well as a range of more traditional applications.

The Mini 18 is light weight and has the same proven weathering performance as the Onduline Classic making it the ideal 'Do it Once' upgrade, improving both the appearance and service life of traditional felted shed roof coverings.

A tradition of quality



RENOVATE YOUR SHED

Whilst it is easy to neglect your most valuable garden asset - the shed, it only takes some imagination and Onduline Mini 18 to transform your garden buildings for the better.

Onduline Mini 18 provides the perfect combination of attractive low profiled roofing with guaranteed 'Do it Once' weathering protection.



ADVANTAGES

Onduline Mini 18 sheets are manufactured using the same advanced production process as used to produce the Onduline Classic sheets, the global market leading bituminous roofing. Manufactured in compliance with EN534:1998 - Corrugated bitumen sheets. ISO9001: 2008 Quality Management Standard and ISO 14001: 2004 Environmental Management Standard.

GUARANTEE

Mini 18 forms a tough, durable and low maintenance roof covering which is supported by a ten year weathering guarantee, subject to terms and conditions.* Note: Reference made to 'Do it Once' roofing performance is based on the typical garden building service life of ten years.

VERSATILE ROOF APPLICATION

Being light in weight the Mini 18 roof sheets can be fixed either direct to an existing decked roof or onto batten / purlin roof structures. Alternatively you can further upgrade your roof by easily creating an insulated warm roof section. This can transform the internal working environment of your garden building by reducing heat gain and loss through the roof.

ACCESSORIES:

Mini 18 Nail Packs: available in packs of 100 (4 to 5 sheets)

Mini 18 Ridges: Length: 1.100mm, Cover: 0.900mm.

Note: The Mini 18 ridge is also used as a verge piece on Onduline Classic projects.

Mini 18 Abutment Apron Flashing: Length: 0.864mm

Eaves batten cloaking piece: Length: 1.220mm Cover: 1.120mm

THE ONDULINE SALES AND TECHNICAL TEAM WILL BE PLEASED TO ASSIST YOU WITH YOUR PROJECT REQUIREMENTS.

Caution: The 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 HSG33 working at heights.

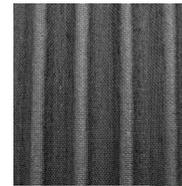
* Terms and conditions apply refer to product guarantee for details .

ONDULINE MINI 18 SHEETS

DIMENSIONS: (Nominal)

length: 2,000mm **width:** 866mm
cover width: 768mm **thickness:** 2.6mm
coverage of sheet: 1.38m²
number of corrugations: 18
corrugation width: 48mm
corrugation height : 24mm
weight of material: 3.37kg/m²
weight per sheet: 5.83kg
thermal resistance R value: 0.04mK/W
thermal conductivity: 0.066W/mk

Colours: **Black**



Green



Red



Note: Top of sheet is smooth the underside dimpled

ONDULINE MINI 18 FIXING GUIDE - ROOF DESIGN

The Onduline Mini 18 sheets are easy to handle and fix, just follow these simple fixing instructions to ensure a long lasting roof covering. The first step is to work out which fixing specification below matches your building.

Existing felted roofs **minimum roof slope:**
7° degrees - Gradient 1 in 8

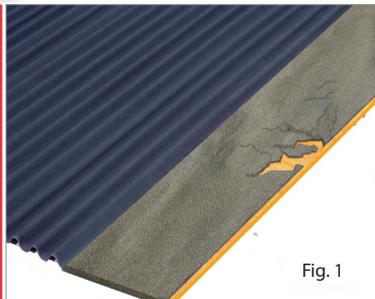


Fig. 1

Overlaying an existing felted roof deck: (Fig. 1)

Check that the roof structure is sound, adequately supported and provides a reasonably level base (cut and flatten any blisters in the felt). Check that the depth of the deck will accept the nominal 25mm nail penetration. Lay the sheets direct to the deck nailing at 600mm centres (Fig. 5). However, should nail heads penetrate into the roof space creating a health hazard, then first mark out and fix 50 x 25mm treated battens at 450mm centres onto the existing roof deck to accept the sheets fixings (Fig. 11).

Battened roofs **minimum roof slope:**
10° degrees - Gradient 1 in 6

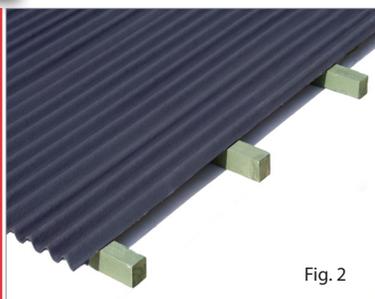


Fig. 2

Laying Mini Profile on battens: (Fig. 2)

First carefully inspect and repair or reinforce the existing roof as required. Then fix 50mm wide treated timber battens at 450mm centres. The battens should have sufficient depth to span and support roof loadings between the buildings structural supports. Check with your timber supplier or our technical department for further information.

Once you are satisfied with the support provided then screw the battens square to the eaves line, allowing for a 50mm drip overhang at the eaves (Fig. 15). Also, position an additional ridge batten to accept ridge fixings (Fig. 12). The Mini 18 sheets are then nailed to the battens in accordance with the fixing guide. (Fig. 4)

Decked roofs **minimum roof slope:**
7° degrees - Gradient 1 in 8

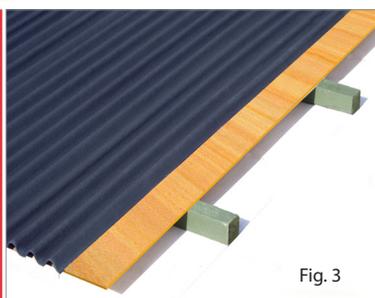


Fig. 3

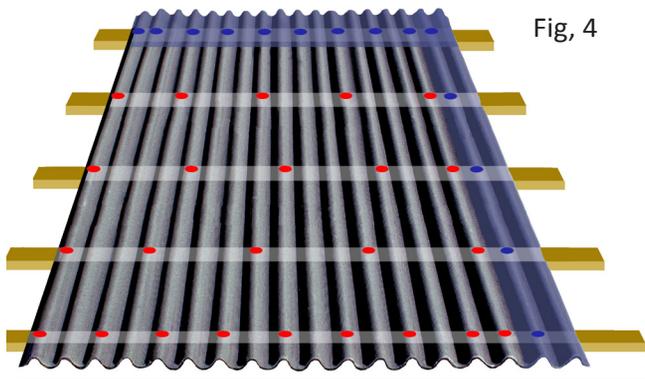
Lined and battened roof: (Fig. 3)

To further upgrade your buildings internal environment, a lined roof can be created which also greatly reduces the risk of condensation formation. It also forms an attractive lined internal ceiling to the building. This can be easily created by fixing treated timber battens at 600mm centres as described above and then overlaying with either T&G boards, exterior quality plywood or roofing grade OSB roof decking.

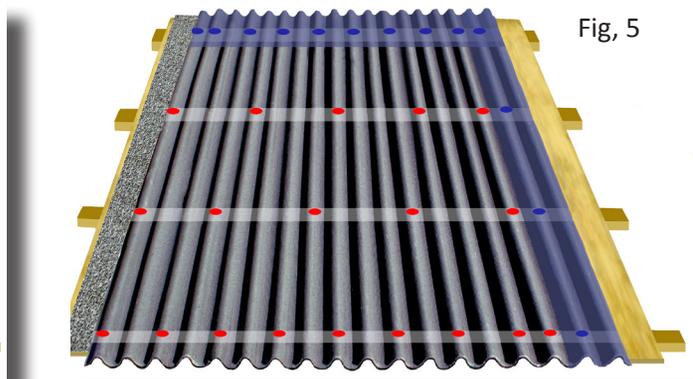
The Mini 18 Sheets are then fixed by nailing through the top of the sheet corrugations via the decking into the supporting battens set at 600mm centres. The sheets being laid in accordance with the fixing guide (Fig. 5).

SETTING OUT THE ROOF, SHEET LAPS AND FIXING

Mini 18 sheets are laid under normal conditions with a 200mm sheet end lap across its width and two corrugation side laps up the length. On roof pitches below 10 degrees (gradient 1 in 6) or on exposed locations the sheet end lap should be increased to 300mm. (Laps illustrated in blue shaded area below).

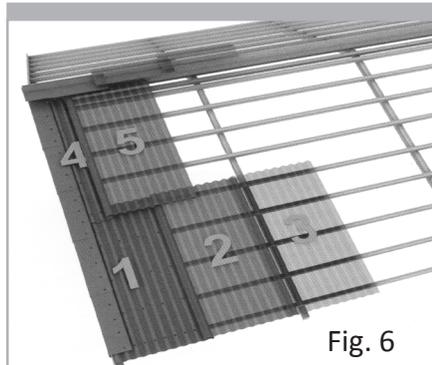


Nailing to battened roof structures: Fig. 4
Treated timber battens should be fixed at maximum centres of 450mm (Fig. 2). Fix sheets in place by nailing through the top of the corrugations into the supporting battens. Nail either side of vertical sheet laps, then nail every other corrugation along the eaves line, sheet end laps and at the ridge fixing line. On the mid sheet battens; nail every fourth corrugation in an offset pattern as illustrated above. The battens should be at least 50mm wide and be of sufficient depth to span the distance between supports.

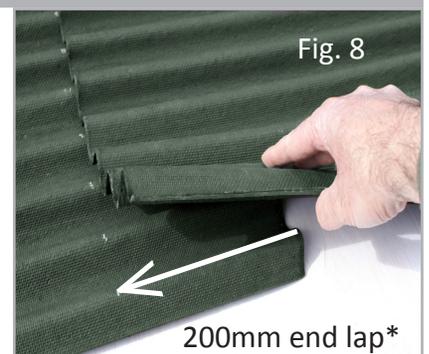


Nailing to boarded or decked roofs: Fig. 5
Check the decking has sufficient depth to accept 25mm nail penetration*. To fix sheets align and mark out fixing lines set at 600mm centres. Fix sheets by nailing either side of vertical sheet laps, then nail every other corrugation along the eaves line, sheet end laps and at the ridge fixing line. On the mid sheet battens; nail every fourth corrugation in an offset pattern as shown above.

Note: If the decking has insufficient depth to avoid nails penetrating into the interior roof space, first overlay the decking with 50 x 25mm treated battens set at 450mm centres and fix as described in Fig. 4*



Laying Mini 18 sheets (Fig. 6): If there is more than one row of sheets to be laid start alternate rows with a sheet cut in half to create a broken bond pattern, thus avoiding a 4 ply sheet thickness at sheet edges. The sheets should be laid the opposite end of the roof from the prevailing wind. **Sheet laps:** Lay the Mini 18 sheets with a two corrugation sheet side lap (Fig. 7) and 200mm sheet end laps (Fig. 8) **Note:** A 300mm sheet end lap should be formed on exposed sites or on roofs with pitches below 10 degrees (1 in 6 gradient). Onduline Mini 18 sheets do not require pre-drilling, simply nail through the top of the corrugation into the supporting decking or batten.



Fixing battens to thin decks: (Fig. 9 & 11). To secure battens onto an existing thin roof decks, first nail the battens in position at the verges from above, then mark and screw the battens in place from inside the building.

Insulated roof option: (Fig. 10) Can be easily created by laying 25mm insulation boards between the battens. Do not restrict the airflow from the underside of the corrugations over the insulation and battens and leave a 12mm gap in the decking at the ridge to promote high level stack ventilation within the building. **Basic roofing terms (Fig. 11)**

EAVES AND RIDGE DETAILS - SHEET CUTTING



Fig. 12



Fig. 13



Fig. 14

Ridge: (Fig. 12) When fixing onto battens a second batten is often required to accept the ridge fixings, the ridge nailing point is normally set at 30mm from the ridge edge. The batten positioning is dependant on the roof pitch and should be aligned and fixed on site prior to fixing the sheets. **Fixing ridges (Fig. 13 & 14)** The ridge units are then laid with a 200mm end lap between units. As an option the end of the ridge to be overlapped can be first trimmed, which when fitted makes a seamless transition of the ridge line by avoiding two thicknesses of ridge being visible at the lap.

Hip detail: To create a hipped roof, fix ridge units up the hip, trim them to the ridge line using tin snips to create a lap at the ridge abutment. To finish, overlay the ridges forming a neat lap. **Option of forming a finial:** A traditional timber finial can be cut and used to cap the ridge / verge intersection. The ridges are laid over the finial by 6mm to complete.



Fig. 15

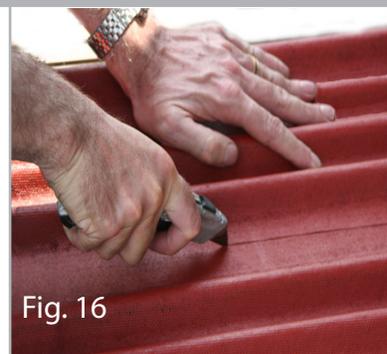


Fig. 16

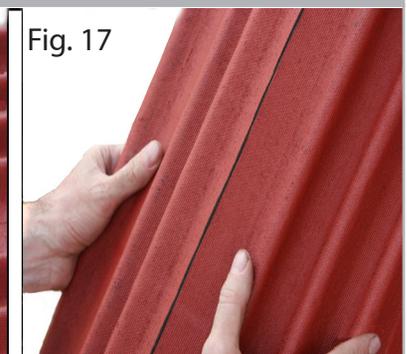


Fig. 17

Eaves (Fig. 15) At the eaves allow a maximum of a 50mm sheet overhang. **Eaves Option;** A preformed Onduline batten cloaking piece can be used to seal the eaves of the existing roof, improving the look and weathering to the drip edge. **Verge (Fig. 15)** At the verge position a 12mm treated timber barge board under the last corrugation at the verge to seal the side of the roof. Or, alternatively use Mini 18 ridge units lapping and fixing them onto the roof and then securing the drop edge to a timber barge board. **Cutting up length of sheet (Fig. 16 & 17)** First score the sheet up its length with a sharp knife and then fold back to split the sheet in two.



Fig. 18



Fig. 19



Fig. 20

Cutting the width of a sheet: (Fig. 18 & 19) First mark the line to be cut across the top of the corrugations, we always recommend that you use a power saw fitted with a coarse blade to avoid the teeth being clogged with bitumen residue. If using a hand saw, again ensure it is a coarse bladed saw and then apply an oil based lubricant frequently to prevent the saw teeth from binding with bitumen residue.

Maintenance: Check the roof carefully on completion. Then to maintain it just remove seasonal leaf debris from the roof and gutters and trim branches in contact with the roof covering periodically to ensure a long service life. **(Fig. 20)**

Onduline Quality Roofing Range



ONDUVILLA TILES

The Onduvilla tile strips are produced with a unique three tone colour finish, this recreates the warm natural colours that are normally only associated with expensive and heavy clay roof finishes.

The Onduvilla tile system also features an attractive 'bold roll' tile profile creating an appealing roof finish to your garden buildings. Onduvilla is produced in an easy to handle and fix tile strip format, which makes it the ideal choice for a wide range of timber frame buildings.



PRODUCT RANGE:

Onduline also produce an extensive range of light weight roofing products including Bardoline bituminous shingle tile strips and an extensive range of Onduline Plastics, Polycarbonate and GRP profiled sheets.

ONDUTILE LOW LINE

TILE AND SLATE UNDERLAY SYSTEM

Onduline Mini 18 is also used as the base sheet for the latest Ondutile tile underlay system development: 'Low line'. The Ondutile system provides a durable secondary roof fitted below tiles in situations which restrict the available roof pitch to below the tile manufacturers minimum recommended roof pitch.

Full details are available online www.onduline.co.uk



GENERAL INFORMATION

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 and insulation will reduce this problem.

Conditions Of Use

Although the colouring process in the manufacture of the Mini 18 sheet is long lasting, as with similar natural roofing materials it is subject to the effects of weathering over its period of service. The colour can also differ between production batches.

Guarantee

Onduline Mini 18 forms a tough, durable and low maintenance roof covering which is supported by a ten year weathering guarantee subject to terms and conditions, when fixed in accordance with the fixing guide and maintained as recommended.

Technical Note

Onduline Mini 18 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 strict accordance with the paint manufacturers instructions.

Onduline

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