

**Planwell**  
**roofing**  
**Supplies**

*Profile Roofing Manufacturers*

# Permarmor

## FIXING GUIDE



**Designed for Garages & Sheds, Houses, DIY, Flat Roofs,  
Industrial & Agricultural Buildings etc.**

**Permarmor - LASTS A LIFETIME!**

# Permaroof Permaroof Permaroof

## SECTION 1 - Fixing Details

## SECTION 2 - Insulated Roofing

**Planwell's Permaroof** Box Profile Metal Roof Sheetting is easy to handle, made of durable and economical material and is used for domestic DIY, agricultural and industrial applications throughout Europe. **Permaroof** provides an excellent solution for roofing and wall cladding problems and has a multitude of applications including:

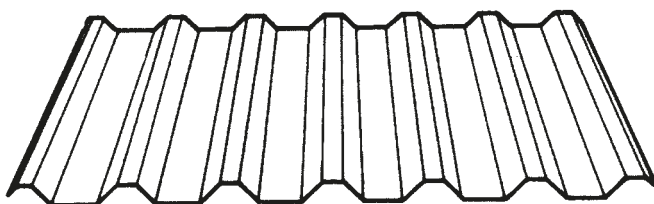
- ◆ GARAGES & SHEDS
- ◆ HOUSES
- ◆ CARPORTS
- ◆ FLAT ROOFS
- ◆ DIY
- ◆ INDUSTRIAL & AGRICULTURAL BUILDINGS

**Permaroof** is a high quality, versatile product which is available in a wide range of different finishes, can be walked on and is not harmful to the environment.

**Permaroof** is available in a wide selection of natural colours.

**Permaroof** is simple to fix by use of self-drilling screws and colour caps and can be combined with all compatible commercially available construction materials.

## Permaroof Sheet Dimensions

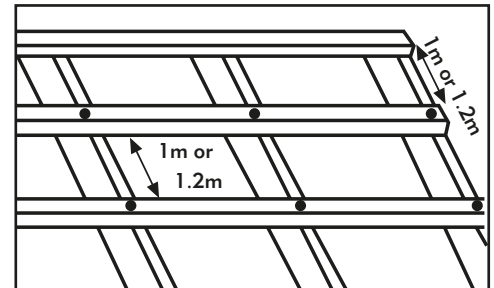


<b>Sheet Length</b>	Manufactured to your requirements.
<b>Sheet Profile</b>	30mm height, 1m cover width.
<b>Sheet Thickness</b>	Available in both 0.5 & 0.7mm

**SLOPE Recommended Minimum - 5° Pitch**

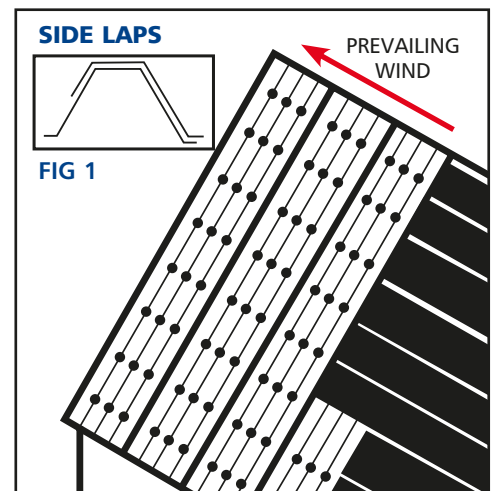


**Profile Roofing Manufacturers**



### 1. STARTING

Purlins should be fitted at 1m (3'3") or 1.2m (4') centres and should be not less than 50mm square, supported by rafters. Unsupported purlins must have a depth of at least  $\frac{1}{20}$  of their span.



### 2. LAYING THE SHEETS

Commence fixing the sheets at the opposite end of the roof to prevailing winds. Each sheet should receive one single overlap/sidelap (see above). Permaroof is usually available in long single sheet lengths, however, for very large roofs separate sheet lengths can be used (for ease of handling). In this instance please allow an adequate overlap (contact Planwell for further details). Please also remember to allow overhang into the gutter.

#### SIDE LAPS

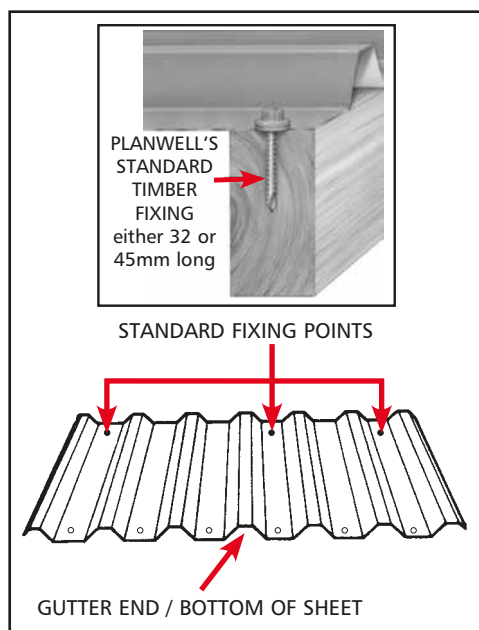
**FIG 1** - shows the roof sheet with "additional support" side lap on one end.



**FIG 2** - shows the roof sheet with "standard" side lap.

**Contact Planwell for further details**

# SECTION 1



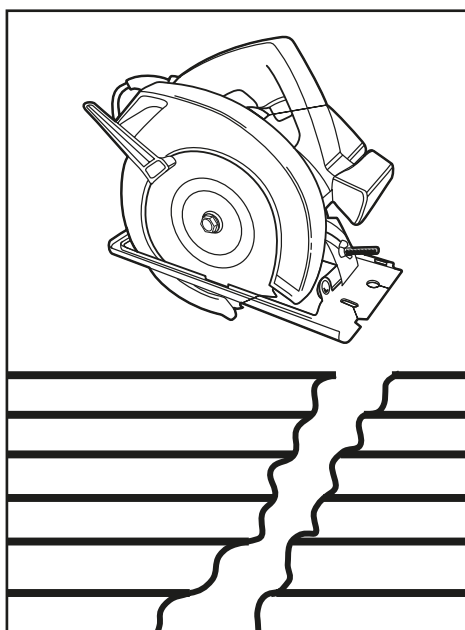
## 3. FIXING

Screws are fixed into the **flat** of the sheet and into the purlin or decking. The screws are nearly always self-drilling and will drill through the sheet and into the purlin/decking by adding a little pressure using the drill/fixing gun and Planwell's special fixing socket. There are usually 3 fixings fitted across each purlin (see standard fixing points shown above). At the bottom of the sheet (gutter side) it is important to install 6 fixings (one in each flat of the sheet) as shown above to avoid wind uplift.

**IMPORTANT - PLEASE NOTE** - In areas of extreme high winds it may be necessary to fit additional fixings.



"Eaves" fillers are fitted by slipping in below the bottom of the sheet (at the gutter side) and are held in place by the bottom 6 fixings as diagram above.



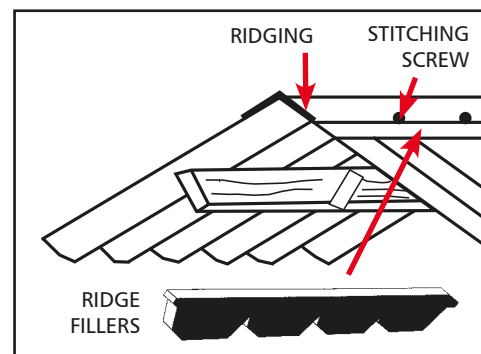
## 4. CUTTING

Permaroof is best cut by using a jigsaw with a metal blade. Roof Sheets can also be cut by using a power saw, still saw or grinder (all with metal cutting blades). If cutting by power saw or grinder it is important to brush any 'sparks', metal cuttings or swarf off the sheet so that these do not cause rust marks. The cut edge should then either be covered with a metal flashing or treated with the appropriate paint (painting is important if the sheet has been cut in a 'valley').

**NOTE** - sometimes cutting can be avoided by 'double lapping' the last sheet.



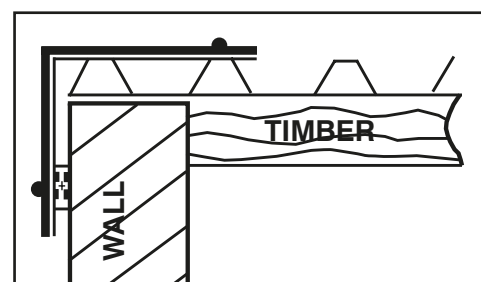
Available in "reverse" profile for wall/side cladding



## 5. FIXING RIDGES & FILLERS

Commence fixing ridges at the opposite end of the roof to prevailing winds. Overlaps should be 150mm. Additional purlins should be fitted to suit (if required). The ridging is secured by using the self-drilling (22mm) stitching screws. One stitching screw is fixed on **each top profile**, fixed through the ridge filler and into the roofsheet (metal to metal). By fixing this way the ridge filler is also held in place.

**NOTE** - Any ridging can be cut by using standard tin snips.



## 6. FIXING BARGES

Barges (corner edge flashings) are again fixed through the top of the Permaroof profile by using self-drilling stitching screws. Usually 10-12 fixings are fitted on either side of each 3m length of flashing at 250-300mm centres. If the barge flashing overhangs a wall then it may be necessary to firstly fix a timber batten onto the wall (by using hammer plug type fixings) and then screw into the timber support batten.

**NOTE** - All barge flashings can be cut by using standard tin snips. Overlaps on flashings should again be 150mm. Where the flashings meet at a corner, simply "mitre" (cut and fold) - seal the joint with mastic (if required) - and fix together with stitching screws.

## SAFETY - DON'T FORGET

**FIXINGS:** Only use proper "Permaroof Fixings" at correct spacings

**SAFETY FIRST:** Please use Planwell's Safety Gloves when handling sheets

**The use of Safety Goggles is recommended when cutting sheets or flashings**

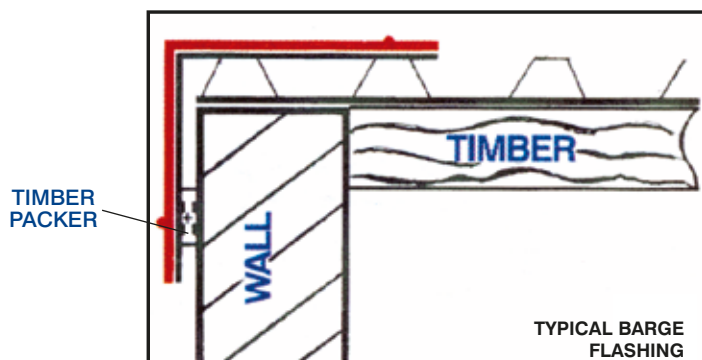
For more details on fitting **Planwell's** Insulated Roofing see **SECTION 2**



# FLASHINGS - in NOVA, POLYESTER and PLASTISOL

Planwell manufacture all Permaroof metal flashings (edging) to suit individual requirements. Here are examples of the three most popular flashings required.

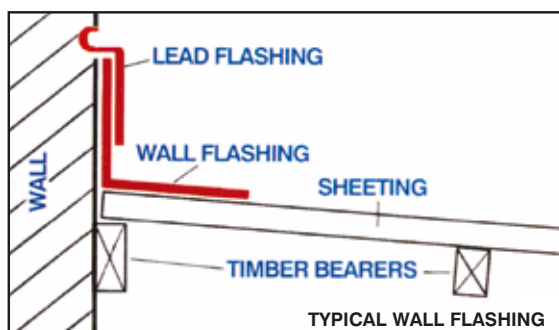
## Permaroof Flashings



1



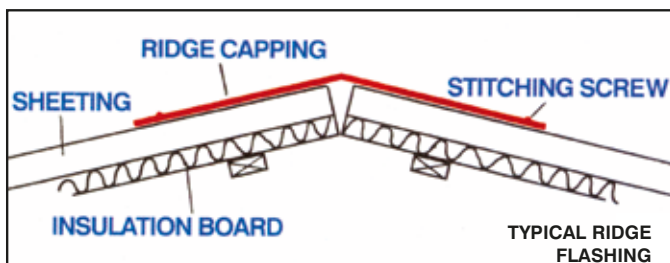
TYPICAL BARGE FLASHING



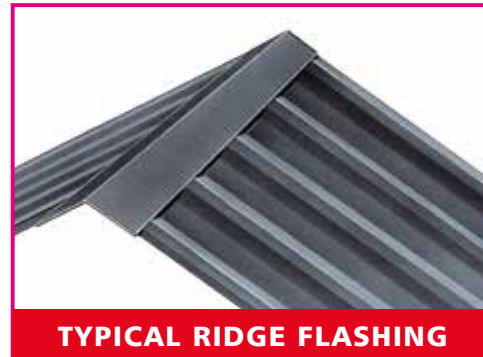
2



TYPICAL WALL FLASHING



3



TYPICAL RIDGE FLASHING

We have provided just three examples of different types of flashings on this page but can manufacture a wide variety of flashing shapes and sizes, please contact our office for further details.

PLEASE NOTE: Planwell Roofing Supplies Ltd cannot be held responsible if any product supplied is not installed correctly and as per our clear written instructions.

## PLANWELL'S WRITTEN GUARANTEE



PLANWELL'S WRITTEN GUARANTEE: a 20 year written guarantee is available with our NOVA-MICA range of sheeting and a 10 year guarantee is available with both our Polyester and Plastisol ranges.

## SECTION 2

# PLANWELL'S INSULATED ROOFING

INSULATION FOR . . .



**PLEASE NOTE: ONLY READ  
THIS SECTION IF YOU ARE FITTING  
AN INSULATED ROOF**



**BEFORE** - LEAKING



**DURING** - NEW ROOF BEING  
FITTED WITH INSULATION



**AFTER** - SEALED,  
WARM & DRY



# SECTION 2

# INSULATED ROOFING

## A QUICK & SIMPLE INSTALLATION

**PLEASE NOTE: ONLY READ THIS SECTION  
IF YOU ARE FITTING AN INSULATED ROOF**

### BEFORE STARTING

- The recommended minimum fall/slope for all metal sheet roofs is 5°.
- Before the start of roofing works please take five minutes to read the *Planwell Fixing Guide*, this is supplied along with all orders placed.
- Purlins should be fitted 1m to 1.2m (4ft) apart. If your purlins are wider apart than this then a 0.7mm thick sheet would be required.

### INSTALLING AN INSULATED ROOF

- Firstly place an insulation board on top of timber purlins. Fix the insulation board with one or two nails into the purlins (to keep in place). The standard insulation board dimensions are 2.4m long x 1.2m wide (40mm thick).
- If, for example, the roof sheet length is 3.6m long then this would require one full insulation board 2.4m long then half an insulation board 1.2m long.
- Insulation boards can be cut with a saw or sharp stanley knife.
- Simply butt the two insulation boards together and tape the 'joint' on top of the boards with silver joint tape (provided). This will help to achieve a continuous 'vapour barrier'. **IMPORTANT this must be done on all joints of insulation boards.**
- It is then simply a case of placing the first roofing sheet on top of the insulation board, marking with a pencil where the purlins are and then fixing through this with the self drilling screws provided (usually 80mm long).
- Once you have fixed your first sheet you will see that the insulation is 200mm (8") ahead of the roofing sheet. A T/Bar should then be slid below the insulation board (this helps support the edge of the insulation board and will hide the 'joint' of the insulation boards from inside the building) giving a neat appearance.
- It is then simply a case of butting your next insulation board against the previous, taping the joint on top, then continue by securing your next roofing sheet as previous.

### "SMALL TIPS"

- If, for example, you are fitting two insulation boards on a 3.6m roofing sheet you would need one full board at 2.4m long and a half board at 1.2m long.
- It always looks better from the inside of the building when the joint of the 2.4m long board and the half board are fitted directly on top of a timber purlin as this in effect 'hides' the joint. This is easily achieved by ensuring that the two boards land 'halfway' across a timber purlin on the area concerned.  
**NOTE** if this is not possible then 'cross' T/Bars can also be introduced (T/Bars going across the board rather than up and down).
- If you have a timber fascia, keep the insulation board back level or behind this fascia and let the top roofing sheet project out the 2' or 3' into the gutter.  
The insulation board does not need to come out all the way to the end of the roofing sheet.  
Keeping the insulation back level or behind the fascia will stop birds (etc) from 'pecking' at the insulation boards.

### PLANWELL'S 'T-BAR' AND LINER BOARD SYSTEM

This comprises of a lining board of suitable thickness (to achieve the necessary 'U' Value), which is placed on top of the purlin and set within a T-Bar system. T-bars are fixed to purlins by means of nails or tacking screws. The insulation board is positioned and foil backed tape applied to the joint prior to laying the top sheet.

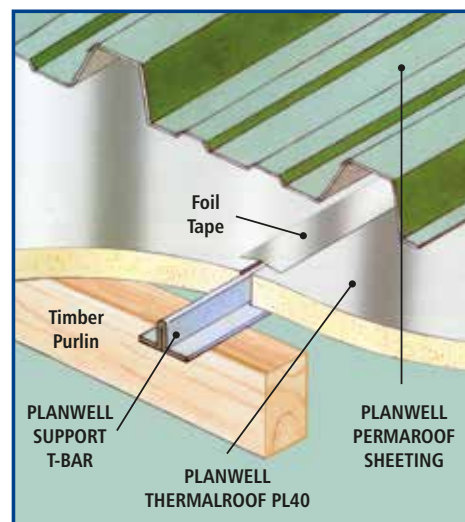
Cross T's are introduced if it is not possible to line joints of the board system with the position of the purlins.



#### INSULATION DETAILS

Board Thickness - 40mm available from stock  
Board Sizes - 1.2m x 2.4m  
Appearance - Silver foil on both sides  
Similar Products - Kingspan Thermaliner TL60

### TYPICAL DESIGN DETAILS Over Purlin Lining



**PLANWELL'S INSULATING  
AND ROOFING SHEETS - EASY  
TO HANDLE & INSTALL**

**Planwell**  
*roofing*  
**Supplies**

## SECTION 2

# PLANWELL INSULATED - A WARM ROOF FOR LIFE -



**BEFORE - LEAKING**



**DURING - NEW ROOF BEING  
FITTED WITH INSULATION**



**AFTER - SEALED,  
WARM & DRY**

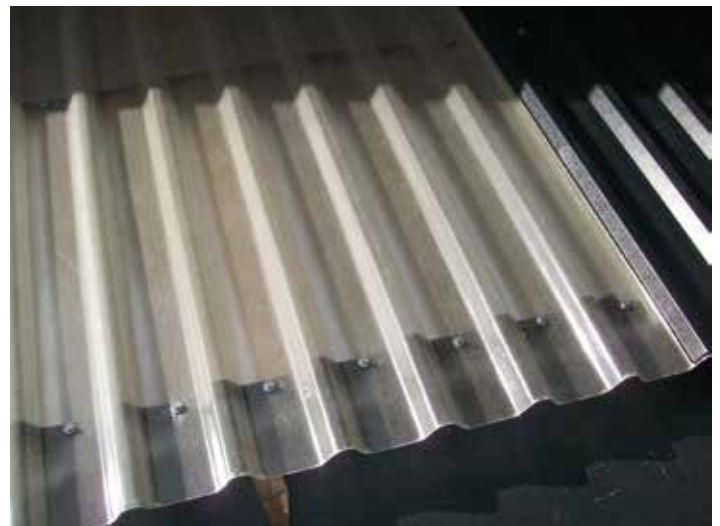
### INSTALLING PERMACLEAR ROOFLIGHTS SINGLE AND 'DOUBLE SKINNED' (full length sheets)

When a certain percentage of rooflighting is desired within the liner board system then a standard class 111 rooflight is fixed over the top – matching the profile of the top sheet (Please contact Planwell if you require further details). For 'double skinned' rooflights, firstly cut any surplus insulation boards back flush/level with metal sheet to provide maximum amount of light, then fit a T-bar. Install the low level (17mm) Class 1 rooflight first, then fit Planwell's underliner foam fillers (white in colour) on top of the purlin as a 'packer' (tack these in place using nails/screws) then fix the 30mm profile (top rooflight) on top of the 'packer' and screw through this into the purlin (see photos below for more details).

### PHOTOGRAPHS SHOWING INSTALLATION OF "DOUBLE SKINNED" ROOFLIGHTS



- Low level (17mm) underliner rooflight has been tacked onto timber purlin. Planwell's (white coloured) underliner foam fillers are then placed on top of underliner rooflight then tacked/fix into the timber purlin



- Top 30mm rooflight (matching profile of metal roof sheets) is fixed through foam fillers and the underliner rooflight into timber purlins

### INSTALLING 'DOUBLE SKINNED' ROOFLIGHTS (in the centre of a roof)

If you are fitting a rooflight in the centre of a roof (ie) with metal roof sheets top & bottom of the rooflight, when fitting the 'underliner' rooflight it may be necessary to land the insulation board 'half onto' the timber purlin, so as to allow the bottom 'underliner' rooflight to also land 'half on' the timber purlin, alternatively it may be necessary to install additional timber purlins/supports at these areas. When installing the top (30mm rooflight) it is important that it has a good overlap (ie) approx 300mm below the top metal roof sheet and approx 300mm over the top of the bottom metal roof sheet.



Designed for... Garages, Sheds, Houses, DIY & Flat Roofs

[www.planwell.co.uk](http://www.planwell.co.uk)

# Planwell

## Permarmor metal roof sheeting



# Permarmor

**JUST LOOK AT  
THE DIFFERENCE**



**PLANWELL -  
COVERING  
SCOTLAND**

PLEASE NOTE: Planwell Roofing Supplies Ltd cannot be held responsible if any product supplied is not installed correctly and as per our clear written instructions.

**MAKE SURE YOU PLANWELL TODAY!**

**PERMAROOF PIPE SEAL  
FLASHINGS**



AVAILABLE IN A  
SELECTION OF SIZES FOR  
BOTH HOT AND COLD PIPES  
TELEPHONE PLANWELL FOR DETAILS

**Planwell**  
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Profile Roofing Manufacturers



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John Duncan Family  
Company in 1989

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