

# PREPARING AND LAYING THE DECK

## Cold Roof Construction

A cold roof is where the insulation is laid between the joists and is supported by the ceiling. To allow for ventilation, a 50mm gap should be left from the top of the insulation to the bottom side of the decking. This ventilation is vital to prevent condensation. Ensure your decking boards are dry before you lay them, as ProGRP will not bond to wet or damp boards and the roofing will become delaminated.



## What are the benefits of using OSB decking?

- They are lighter than full sized boards, allowing an easier carry onto the roof.
- They are engineered to minimise the effects of contraction and expansion.
- Wastage is reduced since board joints don't need to occur on a joist.
- No bandaging is required for T&G board joints.

## Laying the Deck

To begin laying the deck, take your 2400 x 600 x 18mm OSB Smartply T&G boards and lay them at a 90° angle to the joists and have the writing facing upwards. This will guarantee that when you apply the resin, the joints will fill with the resin, which will help bond the boards together. You should begin laying your boards at the furthest edge from the drainage edge. For your boards that are laid along a wall, you should allow a 25mm expansion gap between the board and the wall.

## Commence Decking

To commence the decking, square off the short edge of the board with the fascia and begin laying the boards end to end until reach the opposite edge from where you started. Trim the last board to fit, then begin the next row of boards with the part you cut off, if it is larger than 400mm. Ensure that the grooves of each board you lay are correctly engaged throughout the process. From this point, cut and shape the boards where necessary until you have fully decked the roof.



Once the roof has been laminated, the imperfections in the decking will be reflected on the roof surface. You can fix this with gas powered nail gun and 65mm sheradised ring shank nails, alternatively you can opt for a screw gun using plated/passivated woodscrews. Your fixings should be inserted at 200mm spacings on every joist.

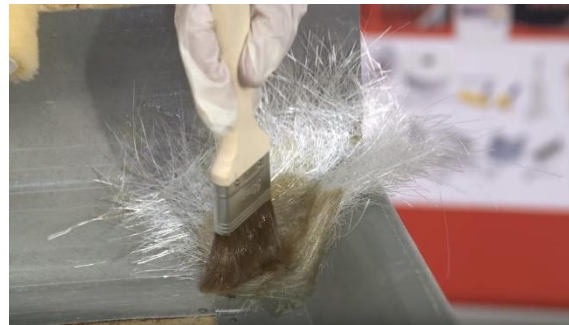
# TRIM INSTALLATION

## Fixing

Now that you've completed the decking, you can move on to the trim installation. Trims are fixed in place using 20mm shank nails. Firstly, 19mm x 38mm battens should be fixed around your roof perimeter in an appropriate position for each trim profile. Before you fix the trim in place, you should put short beads of Cromar PU trim adhesive of about 30mm at 300mm centres should be applied to the battens. You can now position and embed the trim into place to ensure that it is vertical and that it makes good contact with the adhesive.



When using the drip edge trims, it may be necessary to double batten, ensuring the bottom edge of the trim is placed as close to the centre of the gutter as possible. If two trims are overlapping each other, the joining area should be sealed with a continuous bead of the trim adhesive. In addition to this, all trim joints must be bandaged. Where the trims meet at corners, the join can be made by cutting and moulding a corner, using chop strand mat and some catalysed basecoat. Alternatively, if you are using pre-made corners, just remember that all trim to trim joints need the overlap sealing with the trim adhesive and then needs bandaging.



## Drip Edge Trims

A drip edge trim is fitted to the lowest edge of the roof; where the rainwater flows into the gutter. The trim should be packed out using two support battens to ensure the vertical leg of the trim sits into the centre of the gutter. The first batten should be fixed just below the level of the deck and the second should be fixed 10mm below the first. This allows the trim to sit flush with the roof.

## Upstand (Raised Edge) Trims

Upstand trims are to be placed on the non-draining open edges of the roof, so they overlap onto the fascia boards. A single batten should be fixed to the outside of the fascia board and should be level with the top edge of the deck. You can then apply the PU trim adhesive to the battens in 30mm beads at 300mm centres before bedding the upstand trim.

## Angle Fillet Trim

The angle fillet trim is used against an abutting wall or parapet, it should be placed against the wall and sat squarely. It is important to note that it must be fixed in place to the decking and not the wall using ring shank nails at 150-200mm centres. Like the upstand trim, the overlap needs to be sealed in place with the adhesive, but in this case the bead must be placed across the full width of the trim. The whole joint then needs to be bandaged to seal both of the trims together. Note: If you plan on leaving the roof overnight without a flashing trim in place, a bead of PU adhesive can be used to seal the top edge of the angle fillet to the wall. The main flat area of the roof can be covered with a tarpaulin.

## Simulated Lead Flashing

Simulated lead flashing is used with the angle fillet trim and cut into the brick/stonework as a replacement to lead. To install, start by cutting a chase into the brickwork mortar joint with an angle grinder, then insert the flashing trim into the chase after applying a continuous bead of PU adhesive to its rear side. This will now bond the flashing trim to the angle fillet and prevent any sort of water ingress.

Now press firmly into the chase, overlapping the angle fillet trim and neatly point with Cromar PU adhesive. Uneven stone walls may benefit from a conventional lead flashing, or a blackboard can be constructed enabling you to be able to replace the simulated lead flashing with an angle trim.

## APPLICATION OF PROGRP SYSTEM

### Summary of Laminating Procedure

Below is a quick and brief summary of the ProGRP roof laminating process. For more information on specific steps, you can scroll further down.

1) To begin, ensure all debris, tools, etc. have been removed from the roof and that the roof is swept clean and is completely dry.

2) Cut the chop strand matting mat for detailing work.

3) Prepare your bandage for sealing the trims to the roof deck.

4) Roll out and cut your mat for the whole roof surface whilst keeping in mind the 50mm overlap.

5) Roll up the strips of mat and place them together. Lay out your first strip of mat along the highest point and continue with overlapping each strip by 50mm.

6) Prepare your tools i.e. application rollers, metal laminating rollers, laminating brushes and mixing buckets.

7) Select an appropriate area on the ground, adjacent to the ladder for mixing. You should protect this area from spills or splashing using either a cut off of decking or a plastic sheet.

8) Mix a small batch (1-2ltr) of resin for detailing and bandaging. You should take this opportunity to assess the quantity of the catalyst you are using and whether or not you need a longer working time (less catalyst) or a shorter working time (more catalyst).

9) Mix and apply your resin and chop strand mat for the roof area to be laminated.

10) Once the resin has cured, sand down the roof area to prepare for topcoating.

11) Apply the topcoat to your flat roof and trims.



# APPLYING THE TOPCOAT

## Preparation

To prepare your new roof for its topcoat, you should first lightly sand the entire roof surface, as well as corners and details with sandpaper or a sand pad. This will ensure a smooth high quality finish when topcoated. After you have sanded the roof, it is good to use an acetone wipe on the roof surface, this will help the adhesion of the final topcoat. If you find any holes in the laminate, they should be filled immediately with the catalysed resin.



If you are using the C100 flashing trims, they should have been fitted prior to you topcoating the main area of the roof, and after you have cut in with the topcoat, sealing it in place with the Cromar trim adhesive. It is important that you shake and stir the topcoat can well before use, as the contents of it may have slightly settled in the can. You should always aim to apply your topcoat as soon as possible after the laminating process as the roof can be walked on after it has just been laminated.

## Topcoating The Edge Trims

To begin topcoating your edge trims, start with catalysing a small amount of your topcoat (1-2kg/ltr) and then apply it to all of your edge trims and also approximately 100mm onto your roof from the edge trims. You may need to use a brush and a ladder to apply the topcoat to the bottom of your trims as they can be hard to reach from the top of the roof. You should not apply the topcoat to any flashing trims, as this will ruin their pre-finished UV stable covering.



Extra care should be taken when topcoating the edge trims, as they are the part of the roofing system that will often be the most visible.

## Topcoating The Main Roof Area

Now that you are on to topcoating the main area of your roof, you should calculate the amount of topcoat you will need to cover said area, this can be done by using the ready reckoner by Cromar. Measure it out into a bucket, add some of the catalyst to each batch of topcoat before you apply it and remember to stir well for approximately one minute. Start applying the topcoat to your roof at the furthest point away from the exit point, using the appropriate sized soft application roller. You should always use latex gloves when handling topcoat or resin.





The coat you apply should be thin enough to still allow the fibre pattern on the laminate to be visible after application. If you apply too thick of a topcoat, it may crack over time. Continue topcoating the roof using long smooth strokes with your roller, all the way until you reach the exit point. If you are applying a non-slip finish to the roof, grit or slate chip pings can be sprinkled over the roof surface by hand or dispensing applicator as the roof is being topcoated.



If you are applying a mineral finish, the roof can be left uncoated. Alternatively, you can recoat the roof to create a textured finish. To create a neat finish, mark out any aggregated areas with masking tape, then after the topcoat has fully cured (grabbing the aggregate while doing so), sweep off any excess aggregate.

As for how much of each of our materials you will need, see the table below.

Roof Surface Area (M <sup>2</sup> )	Resin Required (1.5kg/m <sup>2</sup> )	Resin Tins Required	Topcoat Required (0.5kg/m <sup>2</sup> )	Topcoat Tins Required	Rolls of 33kg Chopped Strand Matting (450gsm)	Amount Of Catalyst Required	Decking Boards Required (2.4m x 0.6m x 18mm)
5	7.5kg	1 x 10kg	2.5kg	1 x 10kg	1	1kg	5
10	15	1 x 20kg	5kg	1 x 10kg	1	1kg	8
15	22.5	1 x 10kg, 1 x 20kg	7.5kg	1 x 10kg	1	2kg	12
20	30	1 x 10kg, 1 x 20kg	10kg	1 x 10kg	1	2kg	15
25	37.5	2 x 20kg	12.5kg	1 x 20kg	1	2kg	19
30	45	1 x 10kg, 2 x 20kg	15kg	1 x 20kg	1	3kg	23
35	52.5	3 x 20kg	17.5kg	1 x 20kg	1	3kg	26
40	60	3 x 20kg	20kg	1 x 20kg	1	3kg	30
50	75	4 x 20kg	25kg	1 x 10kg, 1 x 20kg	2	5kg	38
60	90	1 x 10kg, 4 x 20kg	30kg	1 x 10kg, 1 x 20kg	2	6kg	46
70	105	1 x 10kg, 5 x 20kg	35kg	2 x 20kg	2	7kg	54
80	120	6 x 20kg	40kg	2 x 20kg	2	7kg	61
90	135	7 x 20kg	45kg	1 x 10kg, 2 x 20kg	3	7kg	69
100	150	1 x 10kg, 7 x 20kg	50kg	1 x 10kg, 2 x 20kg	3	7kg	77