



Application Manual

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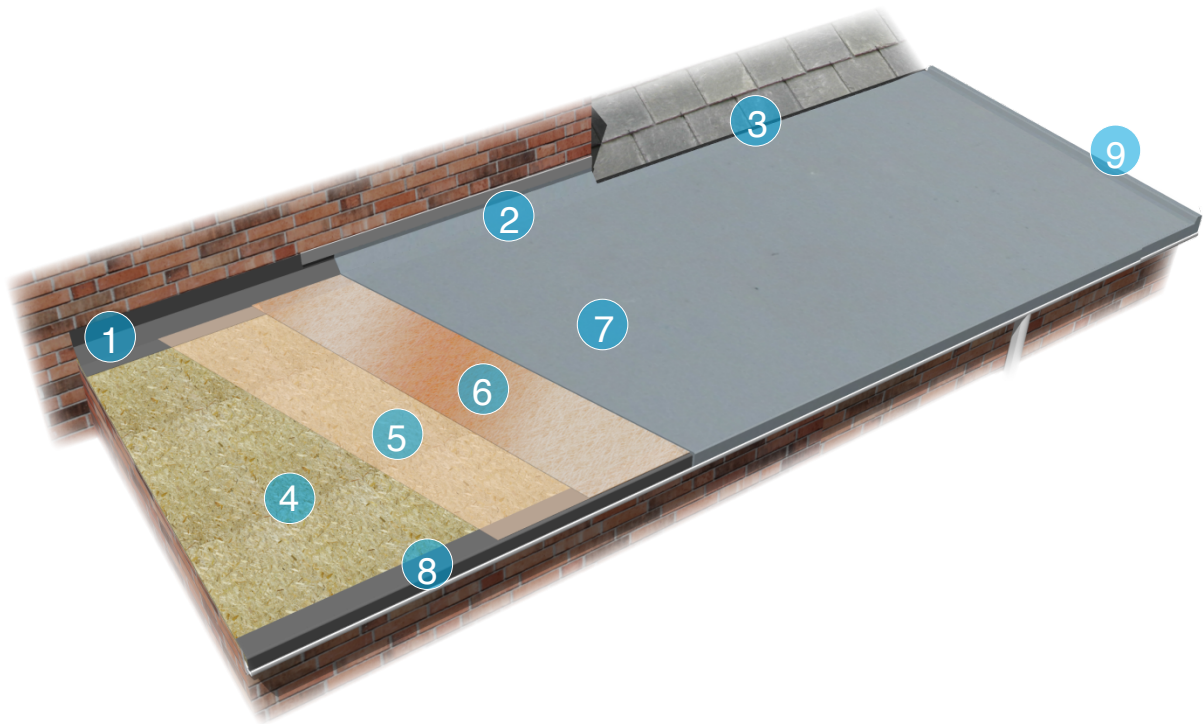
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1. Introduction

The Cover It System brings innovative liquid roofing technology into the domestic market. Specially formulated to provide lasting waterproof protection for roofs and balconies, the Cover It System offers unrivalled performance at exceptional value.

The illustration below shows a typical roof installation including some of the main components of the system.



- | | |
|---------------------------------|----------------------------------|
| 1 Wall fillet trim | 6 Reinforced Cover It Base Resin |
| 2 Cover flashing | 7 Cover It Top Coat |
| 3 Flat trim (underneath slates) | 8 Drip trim |
| 4 OSB3 TG4 deck | 9 Upstand fascia trim |
| 5 Cover It Base Resin | |

Key Benefits

Cover It is the new GRP system that features enhanced performance compared to traditional fibreglass systems, including:

- Rain-resistant during application - if installation is halted due to rainfall, the system will still cure through without the need to strip off un-cured resins
- Flexibilised technology - much more resistant to cracks and splits than standard rigid GRP systems
- Easy repairs and alterations - no need to grind back top coat to reveal Base Resin should any repairs or alterations be required.
- Superior adhesion - excellent inter-coat and trim adhesion to greatly reduce the risk of flaking / delamination
- 20 year materials guarantee
- Simple and quick installation
- Fire tested to BS 476-3:2004 with an B_{ROOF}(t4) result meaning unrestricted use under Building Regulations
- Suitable for application in temperatures as low as 1°C or as high as 30°C
- Attractive finish to complement any home
- Anti-slip finish available for balconies
- Cold applied for maximum safety
- Totally seamless, joint-free membrane
- Manufactured to ISO 9001 and ISO 14001 standards

Cover It Properties

The Cover It System has been specially formulated not only to offer optimum performance once installed, but also for quick and easy application. Some of the key properties include:

Purpose designed resins	Combination of high durability and longevity
"Toughened isophthalic" Top Coat	Good durability, weathering , water resistance and aesthetics
Special accelerator system	Complete curing across temperature range
Modified for reduced styrene emission	Lower odour in use
Low viscosity	Fast and easy mixing, wetting of fibres and conformability to detail
Tailored thixotropy	Good sagging resistance on vertical application / low ripple
Powder Hardener	Simple, quick and safer method for catalysing base and top coats compared to standard liquid catalyst
Low tackiness	"Walk-on" at an early stage - does not attract debris, quick to detail-sanding stage
Pre-pigmented	For ease of use and optimum colour consistency

2. Before You Start

Component Checklist

Before you start, check that you have all the items you need. If in doubt consult your Cover It distributor.

Deck / Substrate and Fixings

- ☐ OSB3 TG4 deck
- ☐ Treated timber battens (for rigidity to edge trims)
- ☐ Fixings for OSB TG4 deck (ring shank nails, sheradised or plated woodscrews (min 75mm)
- ☐ Fixings for trims (18mm galvanised clout nails)

Main System Components

- ☐ Cover It Base Resin
- ☐ Cover It Top Coat
- ☐ Cover It Powder Hardener
- ☐ Trims
- ☐ Cover It 450g/m² chopped strand fibreglass mat reinforcement
- ☐ Taping mat (for trim joints and other details)

Additional Components

- ☐ Acetone
- ☐ MS Polymer adhesive, such as Soudal Fix All (High Tack) adhesive or equivalent (for bonding trims).
- ☐ Anti-slip finish media (for balcony applications)

Additional Components

- ☐ Solvent resistant medium pile rollers
- ☐ Paddle roller
- ☐ Stirrer
- ☐ Paddle roller
- ☐ Application brushes (for difficult to reach areas)
- ☐ Calibrated buckets (for measuring resin quantities and mixing in catalyst)
- ☐ Protective equipment (latex gloves, respiratory/dust mask and safety goggles)
- ☐ Medium grit sand paper
- ☐ Cloths / rags

Your Existing Roof

You should ensure that the design of the roof to which the Cover It System is to be applied is in accordance with current regulations, codes and good practice. For further guidance consult BS6229 (Code of Practice for flat roofs with continuously supported coverings), Local Authority Building Control regarding compliance with regulations or seek professional advice.

Storage

Ideally the resins should be protected from extremes of temperature before use. Storing the resin at around 15°C for 24-48 hours before use will ensure optimum performance. For further details on storage consult the product labels.

Plan Your Installation

It is recommended that you familiarise yourself with the installation procedure before you start. The next sections of this manual will cover in detail all you need to know to carry out the works. The key stages are as follows:

1. Fitting the OSB deck
2. Fixing the GRP trims
3. Taping the GRP trim joints and other local reinforcements
4. Applying the Base Resin
5. Applying the Top Coat

6.

Uses Advised Against

The Cover It System is not for consumer use and should only be installed by professionals.

3. Fitting the OSB3 Deck

Introduction

Please note that the following is for guidance and this document should be read in conjunction with the relevant OSB3 board manufacturer's technical data sheets. Particular attention should be given to the board manufacturers recommendations regarding storage, conditioning, moisture content, fixing and protection of boards prior to application of the Cover It System.

Top Tip - To avoid contamination of the OSB3 and resin, cut flashing chase before re-decking.

Preparation

The existing roof should be inspected to assess its condition. If the substrate is found to be unsuitable for over-decking (e.g. defective, decayed or structurally unsound) then it will need to be stripped and removed. The timber joists should also be inspected for defects including any wet/dry rot and made good where required.

Standing water should be avoided and if you think there is a potential for this to be a problem then you may want to consider incorporating falls (ideally a min. 1 in 80 This is normally achieved through the addition of timber firrings above the joists. If the roof is to be walked on then extra consideration should be given to improving the falls as standing water could be hazardous.

Recommended OSB3 Type & Grade

This guidance document covers 18mm OSB3 TG4 (Tongue and Groove). These boards have 4 tongue and groove edges and are 2400mm x 600mm. These are the preferred OSB boards to use. Note OSB3 Square Edge versions are available which would require additional local reinforcements to the board joints (see Section 5 for details).



Installation Instructions

1. 2400mm x 600mm x 18mm OSB3 T&G4
Boards should be fixed at max 200mm centres (4 fixings across the board width) and into every joist. A minimum of 20 fixings per board will be required.



2. Boards can be cut as required to fit the roof area. Care should be taken to not affect the tongue & groove joints – if square edges are present then they will need to be taped later (see Section 5)

3. Boards should be laid staggered (see typical pattern right) with the larger gap in the T&G joint face up. This will usually be the writing side up on most boards.

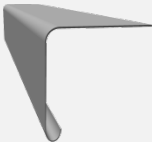
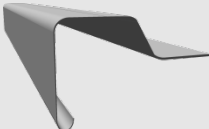
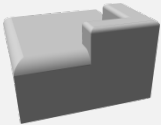
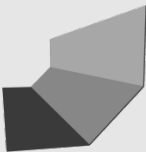


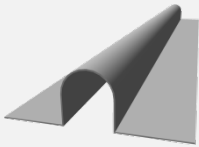


4. The minimum expansion gap is 25mm at all abutments. This includes walls, chimneys, rooflights and the like. Flashings to the wall must be kept independent of the roof to allow movement and wall fillet trims must be used.
5. For large roofs (roofs over 50m² or roofs in excess of 10m in length) special expansion trims will be required. A gap of 25mm should be allowed between the OSB3 boards where expansion trims are to be fitted (see page 13).
6. Fixings should be minimum 75mm annular ring shank nails when fixing directly to the joists or equivalent screws. For warm roof constructions, specialist warm roof fixings will be required, penetrating the joists by a minimum 40mm. Please consult your Cover It Distributor for advice.
7. Boards should be overcoated as soon as possible, ideally the same day. If the boards cannot be waterproofed then they must be suitably protected from the weather at all times to avoid the possibility of becoming wet.

4. Fixing the Trims

Introduction

GRP edge trims must be installed at all roof perimeters including exposed edges, wall abutments and at joints to adjacent pitched roofs. The table below details the type of trims available and where they need to be installed.

Trim Name	Drawing	Where they are fixed
Drip trims		Installed to any perimeter edge where water runs off into a gutter.
Upright Fascia aka Raised Edge		Installed to edges where water does not run off
Corner Piece		Installed at external the corners of the roof
Wall Fillet		Installed to any edges that abut a wall
Cover Flashing		Used to provide weathering protection for wall abutment details
Flat Sheet		Installed beneath slates/tiles at edges that abut a pitched roof
Expansion		Installed for any roofs over 50m ² or greater than 10m over a 25mm gap between boards

Trim Installation Instructions

General Guidance

- Treated timber battens (19mm x 38mm) should be installed as required to the perimeters of the roof (refer to individual trim for batten requirements).



- It is recommended that MS Polymer adhesive (such as Soudal Fix All (High Tack) adhesive or equivalent) is applied to the timber battens to provide additional security for the trims to protect against wind uplift damage. Ensure the trims are pushed against the adhesive to achieve optimum bonding.



- Trims must be mechanically fixed into the OSB3 deck using 18mm large headed galvanised clout nails at 150mm centres.



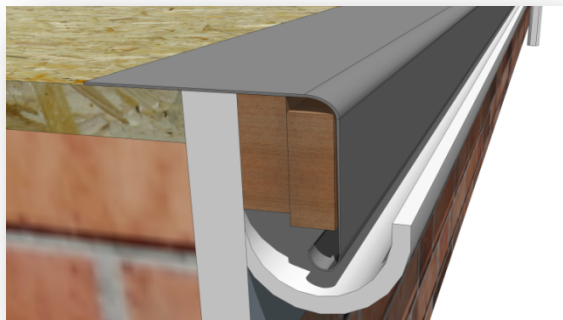
- When joining two lengths of trims together, ensure there is a minimum overlap of 50mm and use MS Polymer adhesive to secure in place prior to mechanically fixing.



- All joints in the trims and the junction between the trim and the OSB3 deck will need to be locally reinforced with 75mm taping mat and Base Resin resin.

Drip Trims

- It will be necessary to install two timber 19mm x 38mm battens at these edges to ensure that the drip trim is located in the centre of the gutter. The second batten should be fixed approximately 10mm lower than the first
- If there is a potential for standing water issues, the gutter side of the OSB3 should be marked with the back of the drip trim and carefully rebated before it is nailed. The OSB3 can then be nailed and the drip trim fitted so that it finishes level with the top of the OSB3 (i.e. the drip trim is in fact "countersunk" flush with the top of the OSB3).



Upstand Fascia Trims

- Because there is no gutter present at these edges, only one 19mm x 38mm batten will be required which should be installed to be level with the adjacent fascia board/OSB3 deck.



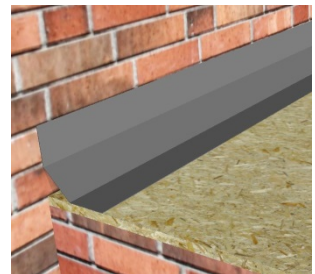
Corner Pieces

- Corner pieces should be trimmed to size so that they exactly match the adjacent edge trims.



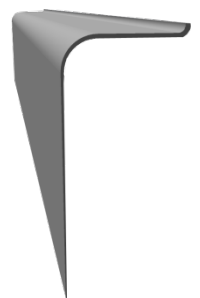
Wall Fillet

- Ensure the vertical face of the trim sits parallel to the wall. DO NOT fix the vertical section to the wall.
- These trims should also be installed at any other right angle abutments.



Cover Flashings

- The flashing trims should be fixed AFTER the application of the Cover It system.
- Before re-decking, a chase should be cut into the mortar of the brickwork using a suitable grinder into which the trim will be slotted in.
- Before placing the trim into the chase, apply a continuous bead of MS Polymer adhesive to the rear of the trim so that it becomes bonded in place.



- Once in place apply clear silicone sealant across the length of chase/trim joint to provide a weatherproof seal.
- NB - If there is already cover flashing in place (such as lead or similar) in sound condition it may not be necessary to install cover flashing trims.

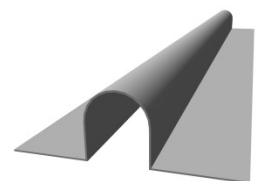
Flat Trims to Pitched Roof Abutments

- The first two courses of slates/tiles should be removed as required prior to installing the flat sheet trim at pitched roof abutments.
- The trim must only be fixed to the OSB3 deck so that the section of the trim resting against the pitched roof is free to move with expansion movements.
- When applying the Base Resin, ensure that the nailed section is covered. NB - It is not necessary to extend the Base Resin across the whole trim, however the whole trim can be coated with Top Coat.
- Replace the slates/tiles upon completion of works after the Top Coat has fully cured.



Expansion Trims (Only for Roofs over 50m² or Roofs in Excess of 10m in Length)

- Expansion joint trims should be placed centrally over a 25mm expansion gap between the OSB boards and mechanically fixed either side.
- When joining two lengths of trims together, ensure there is a minimum overlap of 50mm and use MS Polymer adhesive to secure in place prior to mechanically fixings.
- The joint and the fixings should then be locally reinforced and then the full reinforced Base Resin laminate can be applied over the trim.



5. Taping Trim Joints and Other Local Reinforcements

After all trims have been installed as per Section 4 it will be necessary to tape all the joints between the trims and where the trims adjoin the OSB3 deck in order to prevent stress cracking. Any details on the roof including pipes, outlets etc. should also be locally reinforced. **IMPORTANT** - Any OSB3 board joints which are square edge (i.e. not tongue and groove) should be locally reinforced as described below.

Instructions

1. Pre-cut 75mm taping mat for each area requiring local reinforcement.
2. Thoroughly wipe the trims with acetone and allow the acetone to evaporate before coating.
3. Mix the Base Resin resin thoroughly in the original container until a uniform colour and haze is present. Then decant about 1 kg (0.8 litres) of the Base Resin resin into a calibrated bucket / suitable container on weighing scales.
4. **IMPORTANT** - You must catalyse the resin and guidance on this can be found in the next chapter. The colour of the Base Resin resin should change from blue to orangey-brown within two minutes. Any blue areas that remain should be stirred-in again prior to application.
5. Using a small brush or roller, apply the catalysed resin over the joint/detail and embed the taping mat into the resin.
6. Apply more resin as required to ensure the taping mat is thoroughly wetted out (no dry spots are visible). Remember that wetting takes a little time - so wait a couple of moments and re-roll before adding more resin unnecessarily.
7. Finally consolidate the joint laminate using a small paddle roller and ensure the fibres lie as flat as possible.



6. Applying the Base Resin

Note the Base Resin comprises Base Resin and 450gm Fibreglass mat Reinforcement.

Measuring and Cutting the Fibreglass Mat Reinforcement

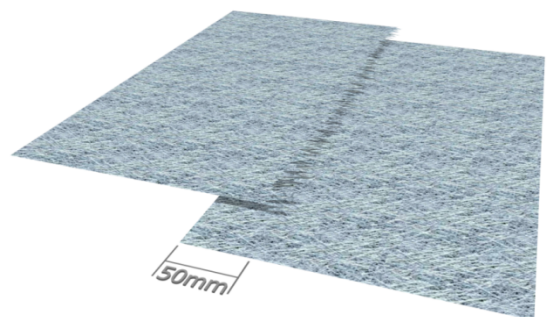
It is important that Cover It fibreglass mat reinforcement is stored in dry conditions. Before use, inspect the mat to ensure there are no damaged, defective or wet areas present.

Carefully measure the roof and assess how many strips of mat are needed, while allowing a 50mm overlap on each width of the glass mat.



Carefully remove the mat from its polythene bag and lay on a clean dry surface. Roll out the required length - if possible always working the fall of the roof (matting strips running perpendicular to the fall of the roof to avoid holding water).

Cut with a straight edge and a very sharp Stanley type knife. Re-roll the cut piece and store in a clean, dry place. Cut all you need for the roof before you start mixing the resin. The fibreglass matting has one straight cut edge and one feathered (torn) edge. When overlapping rolls of mat, a feathered edge should go over a straight edge. The overlap must not be less than 50mm otherwise a weak spot will be created.



Important Notes

Application Conditions

Cover It Resins should be applied in dry conditions between 5°C* and 30°C ambient air temperature. Do not begin if conditions could fall outside of the temperature range of if rain appears likely. * For Low Temperature applications, Cover It Base Resin Accelerator may be used – refer to Appendix C for details

Coverage Rates & Quantities

Cover It Base Resin is applied at a coverage rate of 1.2 Kg/m² (1.0 Litre/m²) when using 450g/m² fibreglass mat reinforcement.

NB: The coverage rate is 1.6 Kg/m² (1.33 Litre/m²) when using 600g/m² fibreglass mat.

IMPORTANT - Using too much resin is detrimental to the system. Always make sure you use the right amount.

Roof Area	Amount of Base Resin required for Main Laminate when using 450g/m ² mat		Amount of Base Resin required for Main Laminate when using 600g/m ² mat	
	Approx. Weight	Volume	Approx. Weight	Volume
5 m ²	5.9 kg	5.0 ltrs	7.7 kg	6.6 ltrs
10 m ²	11.7 kg	10.0 ltrs	15.6 kg	13.3 ltrs
15 m ²	17.6 kg	15.0 ltrs	23.4 kg	20.0 ltrs
20 m ²	23.4 kg	20.0 ltrs	31.1 kg	26.6 ltrs
25 m ²	29.3 kg	25.0 ltrs	39.0 kg	33.3 ltrs
30 m ²	35.1 kg	30.0 ltrs	46.8 kg	40.0 ltrs
40 m ²	46.8 kg	40.0 ltrs	62.2 kg	53.2 ltrs
50 m ²	58.5 kg	50.0 ltrs	77.8 kg	66.5 ltrs
70 m ²	81.9 kg	70.0 ltrs	108.8 kg	93.0 ltrs
100 m ²	117.0 kg	100.0 ltrs	155.6 kg	133.0 ltrs

Table 1.1 – Cover It Base Resin quantities required for typical roof sizes.

NB - It is recommended that an additional 10% material is included in order to cover wastage during application.

Powder Hardner Levels

Cover It Base Resin requires powder hardener at a **minimum of 2%** and a **maximum of 4%** depending on temperature. To ensure that the curing process is not impeded:

- Never use less than 2% even in hot conditions.
- Never use more than 4% even in cold conditions.

The table below provides recommended powder hardener addition rates depending on Cover It Base Resin quantities and temperature ranges. Powder hardener is added to Cover It PRO Resin in the form of scoops using the scoop provided.

IMPORTANT - The temperature ranges shown are to be used as a guide to the amount of powder hardener to use. Always test the pot life in the prevailing conditions by performing a test mix at the suggested powder hardener level before you start application. Adjust powder hardener levels up or down as required to gain the pot life you require. Remember it is always possible to use intermediate levels (e.g. 2.5%) to gain close control of the pot life.

Recommended Powder Hardener Addition Rate:		4%	3%	2%
Temperature Range:		5 - 10°C	11 - 17°C	18 - 30°C
Amount of Base Resin		Number of Hardener Scoops	Number of Hardener Scoops	Number of Hardener Scoops
Volume	Weight			
1.0 ltr	1.2 kg	4	3	2
2.0 ltr	2.3 kg	8	6	4
3.0 ltr	3.5 kg	12	9	6
4.0 ltr	4.7 kg	16	12	8
5.0 ltr	5.9 kg	20	15	10
6.0 ltr	7.0 kg	24	18	12
7.0 ltr	8.2 kg	28	21	14
8.0 ltr	9.4 kg	32	24	16
9.0 ltr	10.5 kg	36	27	18
10.0 ltr	11.7 kg	40	30	20

Table 1.2 – Cover It Base Resin Powder Hardner addition rates.

The powder hardner acts as a Catalyst. It is not recommended to catalyse more than ~ 11.7KG (10 Litres) at a time. When working large areas decant the resin into manageable quantities and always be aware of your pot life.

Cover It Base Resin Application Instructions

1. Brush all loose debris from roof substrate. Check roof is clean, dry and no fixings protrude.
2. Check all boards and trim joints have been taped and feathered where necessary.
3. Stir the Base Resin resin thoroughly in the original container - mixing from top to bottom until a uniform colour and haze is present.
4. Pour the calculated amount of resin into calibrated bucket / suitable container on weighing scales and replace lid on resin can to prevent contamination or unnecessary losses to atmosphere. Do not attempt to mix more than 11.7KG / 10 Litres at one time, and during the hot summer months this should be considerably reduced (see Table 1.1 on page 17 for quantity guidance).
5. Scoop in the correct amount of powder hardener direct into the measured-out resin and mix thoroughly for a minimum of 2 minutes to ensure the hardener dissolves. See Table 1.2 on page 18.

NB - Be sure to wear all suitable PPE at all stages (including safety goggles and suitable rubber gloves). Read the full safety information before starting.

6. Apply Cover It Base Resin using medium pile solvent-resistant roller, working the resin evenly over the substrate to be matted at this point. Ensure that the resin is also worked into all OSB3 TG4 joints. Do not pour from bucket (this will create resin rich areas), rather dip the roller and spread for the most even coverage. Take care to work methodically and avoid standing in wet resin.



- 7.** Place the matting onto the resin wetted boards, allowing for 50mm overlaps onto the trims. Ensure the mat is correctly orientated so the straight cut edge is overlapped by the feathered edge of the next strip. See page 16 for further details about measuring and cutting. All fixings must be covered with mat.



- 8.** Apply a further light coat of resin (wet on wet) using the roller. Do not apply too much resin at this stage – it is unnecessary and may result in a weaker roof membrane if over-applied. Allow a little time for the resin to impregnate the mat before deciding whether more is needed (only where voids or prominent fibre can be seen or mat does not become transparent within a few minutes).



- 9.** Work the resin into the mat using the metal paddle roller, allowing it to spread and soak thoroughly. Allow plenty of time for this operation. The mat will soak up the resin and turn from white to translucent. Consolidate well and roll out all air bubbles with metal paddle roller. Avoid rolling too vigorously as this will create unnecessary splashes with wasted material and risk of contaminating nearby areas.

Note: Pinholes, which are small “pock marks” on the surface of the finished roof, are not always caused by a lack of Top Coat resin, rather a lack of Base Resin or insufficient paddle rolling resulting in trapped air. More efficient use of the paddle roller will help to eliminate pinholes by highlighting bare and unsaturated areas



- 10.**Inspect thoroughly during application and if there appear to be any areas with insufficient resin (voids, prominent fibres or spots remaining white) apply a little extra and repeat 8.
- 11.**Carry on with the next piece of the fibreglass mat repeating the steps above, using 50mm overlaps ensuring the feathered edge is correctly orientated, until the roof is completely covered. Check as you go for complete fibre wet-out and prominent fibres. Curing time is normally between 30 and 120 minutes, dependent upon temperature and catalyst levels. When properly cured it should be virtually tack-free it should not be easy to dislodge glass strands from the laminate surface.

Accurate measuring of the immediate working area, appropriate resin quantities and uniform application will ensure the correct resin to mat ratio. When adequately cured to progress to the next stage.

Inspection of Base Resin

Footwear must be thoroughly clean and dry, or Base Resin will be contaminated and the top coat will not fully adhere. Look for imperfections and fibre prominent areas to which a further thin application of base should be applied.

Prominent strands can be touch-sanded using sand paper. For any defective Base Resin, where necessary cut out the faulty areas and relay the Base Resin and matting - overlapping by 50mm in all directions (repairs are easier at this stage than later). When making the repair, tear a patch from the fibreglass matting to create a feather edge on all sides (this will make the repair less visible). The patch will bond to the main mat to form a joint-free surface.



What to do if Rain Stops Work

- A. **During the Resin Application Phase** - If the rain starts as you are still applying the system stop work immediately. Ensure the area is thoroughly dried and re-lay full system to including Base Resin and mat.
- B. **During the Resin Curing Phase** - If the Base Resin has already been laid and it rains on the roof during the curing process the following should be carried out within 7 days. After that it may be necessary to reapply the full base laminate (consult Technical Services for further details)
 - Dry the area using a blower or cloths. **IMPORTANT** - Never use an open flame to dry the roof.
 - Sand down any wicks or rough areas as normal
 - Thoroughly wipe the roof with acetone and allow to flash off (this is important as it takes the last of the moisture off that may be in the mat fibres/texture of the roof)
 - Apply the top coat as normal (if the rain has pitted or textured the roof then a bit of extra working may be required with the top coat to get an even coverage)

Maximum Overcoating Times

The Base Resin should be Top Coated at the earliest opportunity.

- For best results the Top Coat will be applied the same day if possible.
- If the Top Coat can not be applied the same day, then an acetone wipe is essential. The maximum permitted delay between base and Top coats is 10 days. It is essential to ensure that the roof is sanded to remove wicks and fibres and is clean and free from dirt and debris prior to a thorough acetone wipe.
- If due to unforeseen circumstances the Base Resin is left for longer than 10 days then the base layer should be re-laid.

Same Day	24 hours - 10 Days (Maximum)	Over 10 Days
Action - Apply Direct	Action - Thorough Clean and Acetone Wipe, prior to Top Coat. Do this as soon as possible.	Action - Re-Lay full Base System

Applying the Base Resin - Do's and Don'ts

DO

- ✓ Ideally, lay the Base Resin and the Top Coat on the same day, even on large jobs which should be done section by section.
- ✓ If the Top Coat can not be applied the same day, sanding to remove wicks / rough areas and thorough Acetone wiping* is necessary before top coating. ensure that the roof is top coated at the earliest opportunity and within the maximum overcoating time of 10 days.
- ✓ Protect nearby surfaces from drips and splashes.
- ✓ Tape underside of the any non-T&G board joints with masking tape to ensure that no resin can drip through the board gaps onto the floor area or equipment in the room below and close any up and over garage doors.
- ✓ If the roof gets wet after the Base Resin is laid but before Top Coat is applied, use a brush/mop to remove any large pools of water. Use a twin motor vacuum available from most hire shops, accompanied by a wet suction head to remove any remaining water. Note: A wet suction head is far more effective than a standard squeegee head. Once the roof is dry, use an acetone wipe* whenever the Base Resin has been rained upon.
*** To acetone wipe:** Pour a quantity of acetone into a bucket, soak a clean rag in the acetone, squeeze out any excess until not dripping, and then wipe each area of the Base Resin with the acetone rag. Change the rag for a clean one frequently to avoid transferring contamination. Work in small areas. Allow the acetone to vaporise off completely before progressing (this takes seconds) and apply Top Coat within 15 minutes of acetone wiping for best effect. Note - Acetone is a highly flammable liquid. Observe all safety precautions. Do not use acetone close to any naked lights or electrical items. Wear appropriate PPE (minimum rubber gloves and safety goggles). Take appropriate precautions when disposing of Acetone soaked rags - remember - flammable vapours can build up in confined spaces and present a fire risk

DO NOT

- ✗ Begin laying Base Resin where there is no realistic prospect of Top-Coating within the recommended timeframe.
- ✗ Use a gas torch or any form of heat to dry the Base Resin.
- ✗ Pour acetone directly onto the Base Resin.
- ✗ Use a lick of base in lieu of abrading and Acetone wiping in an attempt to rejuvenate a Base Resin.

7. Applying the Top Coat

Important Notes

Application Conditions

Cover It Resins should be applied in dry conditions between 1C* and 30°C ambient air temperature. Do not begin if conditions could fall outside of the temperature range of if rain appears likely.

* For Low Temperature applications, Cover It Base Resin Accelerator may be used – refer to Appendix C for details

Ensuring the Base Resin is Cured

The Base Resin must be adequately cured before applying the Top Coat. Depending on application conditions and catalyst levels this should be between 30 and 120 minutes (but may be longer in very cold conditions).

To check if it is cured enough to apply the Top Coat, using a gloved finger apply light pressure to the Base Resin – if the fibres within the matting are set and not easily disturbed then preparation for top coating can begin.

IMPORTANT - Refer to page 23 for maximum overcoating times

Coverage Rates & Quantities

Cover It Top Coat is applied at a coverage rate of 0.66 Kg/m² (0.5 Litre/m²). Please refer to Table 2.1 below for quantity of Top Coat resin required for typical roof area sizes.

IMPORTANT – Accuracy with coverage rates is essential. Do not apply the Top Coat too thickly or it may crack or too thinly as it may not cure and will not give full waterproof protection. **IMPORTANT - Using too much resin is detrimental to the system. Always make sure you use the right amount.**

Roof Area	Amount of Top Coat Resin Required	
	Approx. Weight	Volume
5 m ²	3.3 kg	2.5 ltrs
10 m ²	6.6 kg	5.0 ltrs
15 m ²	9.9 kg	7.5 ltrs
20 m ²	13.2 kg	10.0 ltrs
25 m ²	16.5 kg	12.5 ltrs
30 m ²	19.8 kg	15.0 ltrs
40 m ²	26.4 kg	20.0 ltrs
50 m ²	33 kg	25.0 ltrs
70 m ²	46.2 kg	35.0 ltrs
100 m ²	66 kg	50.0 ltrs

NB - It is recommended that an additional 10% material is included in order to cover wastage during application.

Powder Hardner Levels

IMPORTANT - Read the further information regarding catalysing products in Appendix A

Base Resin requires powder hardener at a **minimum of 2%** and a **maximum of 4%** depending on temperature. To ensure that the curing process is not impeded:

- Never use less than 2% even in hot conditions. Summer Inhibitors are available to extend pot life and cure times in hot conditions.
- Never use more than 4% even in cold conditions. Winter Accelerators are available to decrease pot life and cure times in cold conditions.

The table below provides recommended powder hardener addition rates depending on Base Resin quantities and temperature ranges. Powder hardener is added to Resin in the form of scoops using the scoop provided.

IMPORTANT - The temperature ranges shown are to be used as a guide to the amount of powder hardener to use. Always test the pot life in the prevailing conditions by performing a test mix at the suggested powder hardener level before you start application. Adjust powder hardener levels up or down as required to gain the pot life you require. Remember it is always possible to use intermediate levels (e.g. 2.5%) to gain close control of the pot life.

It is not recommended to catalyse more than ~10 kg at a time. When working large areas decant the resin into manageable quantities and always be aware of your pot life

Recommended Powder Hardener Addition Rate:		4%	3%	2%
Temperature Range:		5 - 10°C	11 - 17°C	18 - 30°C
Amount of Top Coat		Number of Hardener Scoops	Number of Hardener Scoops	Number of Hardener Scoops
Volume	Weight			
1.0 ltr	1.3 kg	4	3	2
2.0 ltr	2.6 kg	8	6	4
3.0 ltr	4.0 kg	12	9	6
4.0 ltr	5.3 kg	16	12	8
5.0 ltr	6.6 kg	20	15	10
6.0 ltr	7.9 kg	24	18	12
7.0 ltr	9.2 kg	28	21	14
8.0 ltr	10.6 kg	32	24	16
9.0 ltr	11.9 kg	36	27	18
10.0 ltr	13.2 kg	40	30	20

Table 2.2 - Cover It Top Coat Powder Hardner addition rates

It is not recommended to catalyse more than ~10kg (7.6 ltr) at a time. When working large areas decant the resin into manageable quantities and always be aware of your pot life.

Cover It Top Coat Application Instructions

NOTE - Refer to Appendix B for information regarding Anti-Slip Finishes

1. Mix the Top Coat thoroughly in the original container.
2. Pour correct amount of Top Coat resin into calibrated bucket / suitable container on weighing scales and replace lid on resin can. NB - Top Coat is applied over the whole roof area including edge trims and wall fillets so consider this when decanting.

Catalyse the Top Coat resin as per the Powder Hardener Addition Rate guidance. See Table 2.2 on page 27 and in accordance with the important notes in Appendix A. **IMPORTANT** - Stir thoroughly for a minimum of 2 minutes until all the powder hardener has dissolved.

3. The trims are coated first - when applying resin to trims use suitable protection to catch any drips and splashes, such as a trim off-cut.
4. Whilst the Top Coat on the trims is still wet, the flat area of the roof can then be seamlessly completed using the roller to transfer the coloured top coat from the mixing bucket.



5. A variety of different anti-slip finishes can be achieved if required. Slate granules can be spread over curing Top Coat to create the appearance of a mineral finish. Alternatively a small amount of bauxite grit or other suitable anti-slip media can be broadcast in to the top coat whilst wet at an appropriate rate, then lightly rolled over with finishing roller to create a coloured anti-slip effect.

It is recommended that trims should not be coated with anti-slip finish as this would mar the overall appearance and masking tape should be used to create a neat finish.

Final Inspection

Thoroughly check roof surface for colour evenness and look for any signs of 'pin holing' or irregularity. Any substandard areas should be reworked (see repairs section for procedure). Ensure that no Cover It resin has dripped from the fascia trims onto fascia boards.

Note: Pinholes are not always caused by a lack of Top Coat resin, rather a lack of Base Resin resin applied or insufficient paddle rolling during Base Resin application resulting in trapped air. More efficient use of the paddle roller will help to eliminate pinholes by highlighting bare and unsaturated areas.



What to do if Rain Stops Work

If the Top Coat has been laid and it rains on the roof during the curing process the following should be carried out within 7 days. After that it may be necessary to reapply the full base laminate (consult Technical Services for further details)

1. Dry the area using a blower or cloths. **IMPORTANT** - Never use an open flame to dry the roof.
2. Check the cured roof area for any rain damage
3. If the rain effect has been minor (light drizzle for example) and any damage is just aesthetic then the roof may be ok to leave.
4. If the rain has pitted and damaged the finished & cured roof area then thoroughly acetone wipe the roof and allow the acetone to flash off.
5. Re-apply the Top coat over the affected area (if the rain has pitted or textured the roof then a bit of extra working may be required with the top coat to get an even coverage)

Applying the Top Coat - Do's and Don'ts

DO

- ✓ Top Coat should be rolled fairly vigorously to ensure good wetting of the Base Resin and to release any trapped air bubbles, then rolled over more lightly to create the ideal finish.
- ✓ Protect nearby surfaces from drips and splashes.
- ✓ Use clean gloves for top coat.
- ✓ Mix thoroughly in the original container before decanting.

DO NOT

- ✗ Never wait more than 24 hours since Base Resin application to apply the Top Coat. If this happens, you must abrade and acetone wipe the Base Resin laminate as previously described.
- ✗ Important – do not pour resin directly onto the roof.
- ✗ Do not attempt to 'fill in' low spots with a thick (deep) application of base or top coat, it will crack.
- ✗ Never apply further Top Coat directly to cured Top Coat as it will not adhere and will flake off.
- ✗ Never use MEKP (Liquid Catalyst) under any circumstances

8. Cleaning Tools

Acetone is the normal solvent for cleaning paddle rollers and tools for removing spills. Health and Safety information regarding acetone should be noted.

Hands should be cleaned with a suitable hand cleaner such as Swarfega or Deb Resinaga.

Note - Acetone is a highly flammable liquid. Observe all safety precautions. Do not use Acetone close to any naked lights or electrical equipment. Wear appropriate PPE (minimum rubber gloves and safety goggles). Take appropriate precautions when disposing of Acetone soaked rags - remember - flammable vapours can build up in confined spaces and present a fire risk

9. Repairs

Repairs to the completed Cover It system should be carried out using the following procedure.

Action: Grind down the immediate area to be repaired well into the original Base Resin layer and then thoroughly wipe with acetone. Apply masking tape to the surrounding area before re-laying the full system (Base Resin layer with matting and then Top Coat) over this area taking care to minimise spread of resin over un-ground top coat in the adjacent area.

Should you experience any problems please refer to the Troubleshooting in Section 10 or contact your Cover It Distributor.

10. Troubleshooting

During Application

Issue	Cause	Remedial Action
Resin cures too quickly during application	Air or deck temperature is outside of ideal range or too much catalyst has been added	Remix fresh resin. Consider catalysing smaller amounts at one time
Base Resin does not harden fully	Powder hardener has not been added and/or mixed into the Base Resin or insufficient amount of powder hardener has been used for the conditions	Remove and re-lay affected area taking care on Powder hardener addition levels.
Laminate appears milky and/or tacky	Water contamination during early stages of application	Scrape away affected material, abrade and relay system complete
Resin over-spray causing splashes on adjacent surfaces	Lack of masking and care	Wet resin can be wiped off with a solvent such as acetone (take care as some materials will be affected by Acetone). Cured resin can be pinged off glass and other hard surfaces with a sharp item such as a scraper or other suitable implement. Care should be taken to ensure this process does not cause further damage to the surface. Cured Resin may be more difficult to remove from porous surfaces such as brickwork and driveways. This may involve specialist cleaning techniques.
Top Coat does not harden or remains tacky	Powder hardener has not been added into the Top Coat or insufficient amount of powder hardener has been used for the conditions. Alternatively Top Coat may have been applied too thinly	Scrape away affected top coat, abrade, Acetone wipe and re-apply Top Coat, taking care on coverage rate and catalyst levels
Top Coat does not harden or remains tacky in small patches	Insufficient mixing of Powder hardener into Top Coat or contamination of the Base Resin laminate	Scrape away affected top coat, abrade, Acetone wipe and re-apply Top Coat mixing carefully.

After Installation

Issue	Cause	Remedial Action
Full system has separated from the decking	Decking was dirty, wet or of poor quality	Remove affected area and relay system complete
The top colour coat is flaking away from the base	Base Resin was dirty or wet. Alternatively Base Resin may have been left more than 24 hours prior to Top coating and not acetone wipe / abraded or left for longer than the maximum permitted overcoating time (10 days).	Scrape away affected top coat, abrade and relay system complete
Pinholes within the cured Top Coat	The base system has not been properly paddle rolled or Base Resin/resin has been applied too thinly	Abrade affected area and relay system complete
Cracking within the top coat	Top coat applied too thick	Abrade affected area and relay system complete, taking care to observe correct Top Coat application rate
Ponding	Deck has not been laid with sufficient falls or structure has deflection	Strip and re-deck roof with correct falls, Do not attempt to level roof by building up resin.

11. Safety Precautions

Material Safety Data Sheets

Material Safety Data Sheets are available online at www.coveritgrp.co.uk and from your Cover It Distributor and these provide full health and safety precautions for each product. These sheets should be kept on site at all times. Very important information is contained within these sheets for applicators including:-

- First Aid
- Accidental Release (Spillage)
- Disposal Considerations
- Fire
- Transport
- Exposure Limits
- Personal Protective Equipment

YOU MUST ENSURE THAT THE INFORMATION CONTAINED WITHIN THE MSDS SHEETS IS FOLLOWED AT ALL TIMES

The use of appropriate PPE is recommended at all times when working with Cover It resins (goggles, gloves, overalls, vapour mask for any enclosed areas and dust mask when grinding). It is recommended to have a first aid kit available, as well as eye wash bottles in case of splashes in the eyes.

Acetone are particularly hazardous. Acetone is highly flammable and must not be used near to any potential sources of ignition (e.g. naked flames or electrical equipment) or where concentrations of vapours could potentially build up.

Store resin and catalyst in closed containers and catalyst in well-ventilated areas. Store under dry conditions between 5°C and 25°C, away from direct sunlight.

Empty tins containing uncured Cover It Resin or catalyst are classed as hazardous waste and should be disposed of in accordance with relevant regulations.

12. Appendices

Appendix A - Important Notes on Powder Hardener

Temperature has a significant impact on the pot life (working time) and cure time of the resins. Be sure to accurately measure the temperature of the deck, air and resin to ensure that you are adding the correct amount of Powder Hardener.

Varying Powder Hardener levels can increase or decrease the pot life (working time) of the product. It is very important not to exceed the maximum recommended Powder Hardener level. Doing so has no effect on reactivity and will reduce the final cured properties of the laminate. Similarly, never add too little Powder Hardener as this will result in under cure with reduced performance will result. Where conditions are extremely warm it may be necessary to mix smaller quantities of resin at one time to avoid excessive waste.

Appendix B - Anti-Slip Finishes

Anti-slip finishes can be achieved by dispersing grit or chippings into the top coat whilst it is still wet.

When using anti-slip you should mask off areas that are not to be trafficked and apply the standard Cover It Top Coat finish. These areas could include trims and upstands. In the instance where a maintenance pathway is being formed, you should use masking tape to create the designated walkway area.

The most commonly used anti-slip finish is achieved using Mineral Slate Chippings as follows:

- Mask of designated area
- Whilst wet broadcast clean dried mineral slate grit at a minimum coverage rate of 2.5kg/m². Once cured remove loose grit.
- Approximate retained grit will be 1.5kg/m² and the remaining grit may be recovered for future use.



Typical Finish

Speak to your distributor if alternative anti-slip finishes are required.

Appendix C - Low Temp Applications: Using Product Accelerators

Introduction

Before working with Cover It Accelerator it is vital to read and understand these safety instructions and the associated Material Safety Data Sheet. Most importantly the accelerator must be thoroughly mixed into the resin or Top Coat before catalyst is added. Accelerator and Catalyst must never be allowed to come directly into contact with each other.

The accelerator is used to speed up the curing of the Cover It resins to allow normal working times in cold conditions and to allow the use of Cover It resins at temperatures as low as 1°C. Accelerator is used in addition to the normal catalyst – not as a replacement. Without accelerator the Cover It system should not be used below 5°C or where the temperature may fall below 5°C before the resin is cured.

Method

Note that there is a different accelerator pack specific to Cover It Base Resin and Top Coat. Read the label carefully to make sure the right pack is used with the intended resin.

The whole accelerator pack should be added to 1 x 20 kg pack of Cover It Base Resin and Top Coat. Do not use more or less accelerator than is contained in the pack.

The effect is to give a typical working time of approximately 25-35 mins at 5°C, using the maximum Cover It catalyst level. See the guide overleaf.

For maximum cure speed add as follows:

Product	Accelerator	Then Use Catalyst According to...
20kg - Cover It Base Resin	Cover It Accelerator	Refer to Chart on Page 18
20kg - Cover It Top Coat	Cover It Accelerator	Refer to Chart on Page 27

Colour

If Cover It Accelerator is added to Top Coat, there will be a minor colour difference evident. For this reason, accelerated and un-accelerated product should not be used side by side on the same job if such colour difference is likely to be undesirable for the client.

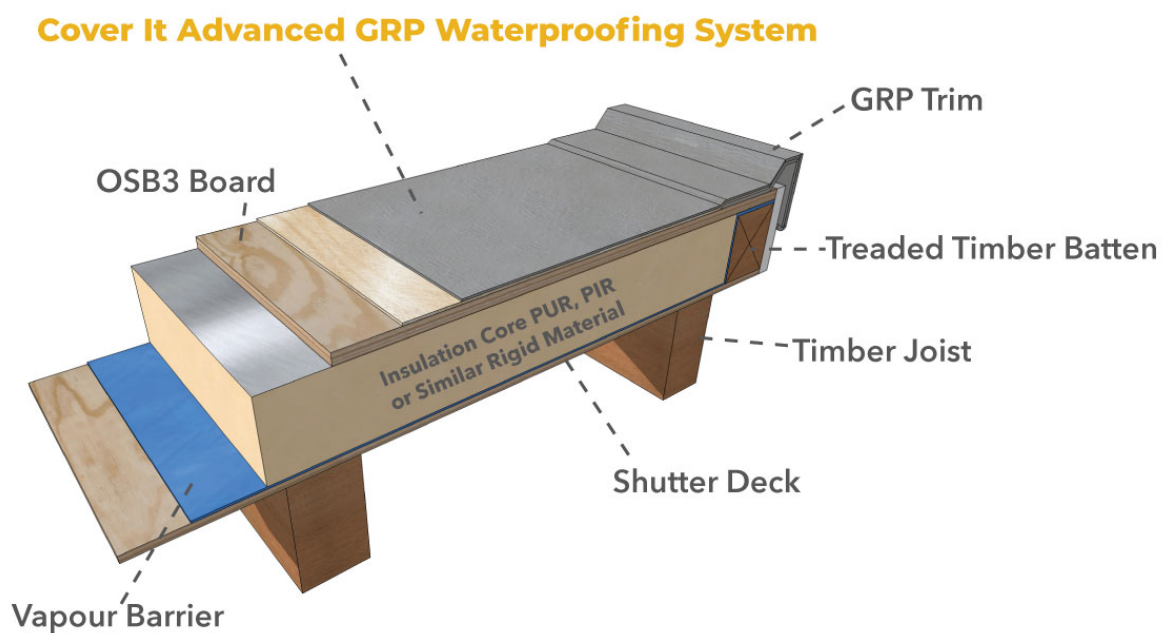
Important safety notes:

- The accelerator should not be added to products other than Cover It Base Resin or Top Coat
- The accelerator must be mixed completely into the Base Resin or Top Coat before adding Cover It Catalyst
- Store the accelerator well away from Cover It Catalyst and other organic peroxides
- Never allow the accelerator to come into direct contact with Cover It Catalyst or other organic peroxides
- Read and familiarise with the MSDS for each part of the Cover It system

Appendix D - Warm Roof Design Guidance

This is a construction in which the thermal insulation is provided above the roof structure (e.g. timber joists). Insulation is usually in the form of a high performance PIR (rigid) insulation board.

Because the structural elements are on the warm side of the insulation, they are less vulnerable to the possibility of condensation and are also protected from extremes of temperature, reducing thermal movement. It is essential that in this type of construction, a vapour control layer is installed below the insulation level. Ventilation is not required to this type of roof, allowing more freedom of design.



Appendix E - Cold Roof Design Guidance

This is a construction in which the thermal insulation is laid between the roof structure (e.g. timber joists). Insulation is usually in the form of a loose laid mineral wool or similar.

It is essential that in this type of construction, that adequate ventilation is provided in the void between the insulation and the roof deck to reduce the possibility of condensation forming. The void needs to be a minimum 50mm and ventilated at both ends to provide an air flow through the structure.

