

RCM SUPERTECH INSTALLATION GUIDE

GUIDE 2021

PREMIERBUILDINGPRODUCTS.CO.UK +44 (0)1428 654781 enquiries@pbp.uk.com



Contents

Introduction

Key product features

System principle

Colours and finishes

Touch up paint

Handling and storage

Health and safety

High wind loading or exceptional impact requirements

Surface mounted features

Ventilation

Cutting and fixing methods

A. Cutting

B. Screwing

C. Nailing

Installing Supertech Weatherboard

14 steps to Weatherboard installation

- 1. Breather membrane
- 2. Battens
- 3. EPDM gasket
- 4. Perforated closures
- 5. Vertical profiles
- 6. Horizontal profiles
- 7. Cutting and fixing
- 8. Jointing
- 9. Finishing top of wall details
- 10. Abutments and gables
- 11. Corner options
- 12. Window details
- 13. Deflection head details
- 14. Coastal location



Efflorescence

Maintenance

Contacts

Appendix of drawings

- A. RCM ST001 Base details using starter profile
- B. RCM ST002 External corner (Symmetrical)
- C. RCM ST003 Internal corner
- D. RCM ST004 External corner (Asymmetrical)
- E. RCM ST005 End profile 20 (Abutment)
- F. RCM ST006 Typical window head detail
- G. RCM ST007 Typical window sill detail
- H. RCM ST008 Soffit detail
- l. RCM ST009 End profile 60 (Stop End)
- J. RCM ST010 Deflection head detail
- K. RCM ST011 Coastal or high wind areas

About RCM



11279 Page 2 of 32 Version 4 - October 2017 11279 Page 3 of 32 Version 4 - October 2017



RCM UILDING BOARDS & FACADES

Introduction

Supertech Weatherboard is a simple to install, fully ventilated rainscreen cladding system which has an appearance similar to that of timber but the durability and strength of cement.

A single facet autoclaved refined cellulose fibre cement plank, Supertech Weatherboard is lightweight, requires little maintenance, can be used in the same way as timber and allows you to create truly stunning façades.

Offering two ranges of finishes, natural timber effect stained and natural timber effect painted, Supertech Weatherboard is an attractive alternative to traditional timber boarding and plastic effect PVCu cladding.

Key product features

- Fully ventilated system
- Choice of Weatherboard dimensions within the range 3660mm x 230mm x 7.5mm
 3660mm x 190mm x 7.5mm
- Resistant to rot, fungus or insect attacks
- High levels of weather resistance
- Low maintenance, long performance life
- Easy to install using standard woodworking tools
- Available in any RAL, BS or NCS colour
- UK factory applied colour
- Range of colour matching aluminium trims available
- Use in the same way as timber
- Fire rated to EN 13501-1 class A2-s1, d0
- Low minimum order quantities for specific colours

System principle: ventilated rainscreen

Supertech Weatherboard is installed to a ventilated rainscreen principle. The objective of the system is to create an air flow at the base of the system whilst creating ventilation at the top of the elevation.

A minimum ventilation gap of 38mm must be created behind the Supertech Weatherboard, with a 10mm ventilation gap at the top and bottom of the system to create a full ventilation flow. The purpose for this function is to remove moisture from within the cavity. Failure to create a full air flow could lead to possible problems with the overall system.

A 10mm gap should also be left under window cills and at the soffit liner to ensure complete ventilation.



Colours and finishes

Supertech Weatherboard is available in a range of colours and wood effect stains (Please refer to RCM Supertech Weatherboard brochure or www.buildingboards.co.uk).

Whilst we do all that we can to maintain consistency when producing batches of colour, we do however advise that you order all elevations at the same time for complete peace of mind.

Touch up paint

Supertech Weatherboard touch up paint is available in 0.5 litre quantities for all colours except wood stain shades.

The paint should be used sparingly on small scratches and for cut edges. For wood stain shades, the end sealer provider should be used to seal all cut edges and protect against edge staining after the installation is completed. An alternative option for stained weatherboard is to use a similar colour to the base stain colour for the cut edges.

11279 Page 4 of 32 Version 4 - October 2017 11279 Page 5 of 32 Version 4 - October 2017





Handling and storage

Supertech Weatherboard should be stored undercover and off the ground on the pallets on which it is supplied. Additional outer wrap packaging for protection during transportation should be removed to release any trapped moisture and then the pack re-covered with an opaque tarpaulin.

It is important to ensure that the reverse side of the weatherboard is kept dry during storage and installation. The foam interleaving should always be put back in place when re stacking. The weatherboard should be protected from staining from mud or other site wet trades.







Care should be taken at all times when handling Supertech Weatherboard on the flat, as it can break. While the weatherboard is stored on the flat, it should be fully supported along its full length on purpose designed pallets. Manual handling is best carried out with the planks carried on their sides after being turned on to its side before being lifted off the stack, and then ideally carried by 2 handlers to provide support along the length of the weatherboard.







Please refer to the RCM Supertech Weatherboard handling and storage labels on each pallet.

Health and safety

When processing Supertech Weatherboard dust can be released which can cause irritation to airways and eyes. Long term exposure to any dust can be harmful to health.

For more information, please refer to the safety data sheet which can be found in the technical section for Supertech Weatherboard at www.buildingboards.co.uk.

High wind loading or exceptional impact requirements

When installing Supertech Weatherboard it is important to fully understand the wind loading of the structure that the product is being applied to. If the wind loading exceeds 1.0KN/m2 please contact the RCM technical team on 0800 612 4662.

Where Supertech Weatherboard could be subject to exceptional impact loads on application at low level, high pedestrian areas, schools, leisure facilities additional timber battens should be installed between the standard battens to increase the performance of the sub structure and the Supertech resistance.

Surface mounted features

When Supertech Weatherboard is subject to additional items being fixed to the building i.e. gutters canopies etc. they should be fixed through the Supertech Weatherboard and into the primary structure or into the main sub structure. Alternatively they can be fixed into additional battens installed behind the Supertech Weatherboard.

Clearance holes should be allowed for when fixing these items through the Supertech Weatherboard. Under no circumstances should the Supertech Weatherboard be used to carry structural loadings.

Ventilation

To make sure that you obtain the best performance from our product and to avoid interstitial condensation we recommend that you use a minimum 38mm thick timber batten to create a free following cavity behind our Supertech Weatherboard.

We recommend that the cavity has a minimum 10,000mm2/m run of ventilation. Based on our timber batten recommendation being 38mm this will provide the necessary cavity for this requirement.

11279 Page 6 of 32 Version 4 - October 2017 11279 Page 7 of 32 Version 4 - October 2017



RCM.

Cutting and fixing methods

A. Cutting

Supertech can be cut, drilled and nailed with conventional woodworking tools in a similar fashion to timber. There are a number of different cutting methods to choose from depending on the quantity of material to be cut.

RCM offers a complete fabrication service for Supertech Weatherboard, please contact our technical department for details.

Cutting and drilling should be carried out in a dry and well-ventilated area with all cuts being wiped to remove dust with a clean, dry cloth. .

Handsaw: We recommend the use of a hardened point saw which should only be used for small quantities.

Electric jigsaw: When cutting Supertech Weatherboard with an electric jigsaw, it is our advice that you turn the weatherboard over to ensure a clean finish on the front side of the board.

Hand-held circular saw: A hand-held circular saw with blades suitable for cutting fibre cement products is ideal for cutting large quantities.

For cutting the product in any volume, we recommend the use of an RCM polycrystalline diamond Dart Blade to avoid excessive wear on other blades. Please contact RCM sales.

As above, we recommend that the board is turned over before cutting in order to avoid marking the front face of the product. A test cut is always recommended.

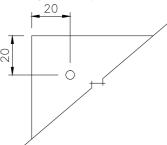
B. Screwing (recommended method)

When fixing to the support structure it is our recommendation that fixings are at least 20mm away from the top edge and 50mm from the end of the board (screw gun required). Pre-drilling of Supertech Weatherboard is not required.

If a screw is required within 50mm of the board edge then pre-drilling and a countersink is required.

Using anti corrosion treated steel screws 4.2 x 42mm, the minimum distances (displayed below) from the edge of the board to the screw or nail positioning are required.

Edge distance D1 20mm D2 20mm



Screws suitable for the installation of the Supertech Weatherboard are available from RCM and can be supplied self-coloured or colour matched to a chosen colour. Please contact sales on 0800 612 4662.

C. Nailing

When installing vertical systems we recommend that only screws are used and not nails.

By hand: When hand nailing there is no requirement for pre-drilling providing the nail placements are at least 50mm from the edge of the weatherboard.

If the nail is to be fixed closer than 50mm, then pre-drilling is required. Holes should be pre-drilled 20mm from the edge of the board with a 3mm drill bit. Regular sharpening of HSS drill bits will ensure clean drill holes where required. Nails should be stainless steel ring shank, minimum size 2.8 x 45mm with 7-10mm head.

Please take care when nailing Supertech Weatherboard.

Pneumatic: Supertech Weatherboard can be pneumatically nailed.

Stainless steel fixings of 45mm length and 2.8mm diameter should be used with ring shank nails preferred as they have a round head of 7mm diameter.

Care must be taken regarding the selection of the nail gun to be used. Nail guns with a narrow head (the nail looks more like a "T" section) are not acceptable.

You can use a "C" shaped head, however, they should have a minimum 7mm diameter head.

In order to calculate the depth of the fixing to ensure nails are left flush with the board front, a test should be carried out. This will also help to determine the minimum distances required from the edge of the board and provide a guide for placements.

In order to prevent nails being fired through the board, or being left standing proud of the face of the board, nail guns must be adjustable.

Installing Supertech Weatherboard

There are a number of different ways to install Supertech Weatherboard however the overall principle is the same.

Fix the weatherboard to preservative treated vertical timber battens of at least 50mm wide that are spaced with a maximum of 600mm centres across the buildings elevation.

All weatherboard should be fixed to a minimum of three battens. If this is not possible and it can only be fixed to two, then batten spacing should be reduced to 400mm centres.

If your building is subject to high wind loading then your timber battens may need to be reduced to 400mm centres

In order to ensure ventilation, a minimum of a 38mm clear cavity is required behind the weatherboard. At the base and head as well as the window and door heads and sills a 10mm continuous opening should be left.

11279 Page 8 of 32 Version 4 - October 2017 11279 Page 9 of 32 Version 4 - October 2017





14 steps to Weatherboard installation

- Fit breather membrane where required generally best practice to include behind the battens for solid walls, timber frame and metal stud constructions.
- 2. Fix battens to the wall
- 3. Fix EPDM gasket to the battens
- 4. Attach perforated closures to top and bottom of battens
- 5. Fix vertical profiles
- 6. Fix horizontal starter profiles
- 7. Cut and fix Supertech Weatherboard
- 8. Jointing of Supertech Weatherboard
- 9. Finishing top of wall details
- 10. Abutments and gables
- 11. Corner options
- 12. Window details
- 13. Deflection head details
- 14. Coastal location information

1. Fit breather membrane

Where required a breather membrane should be fixed to the outer face of the structural wall, with an overlap between the layers of membrane of minimum 150mm. Care should be taken to ensure that the membrane is lapped to drain any water away to the outside of the building.

RCM supply Windfoil by DAFA - please contact sales on 0800 612 4662.

2. Fix battens to the wall

Position and fix the vertical battens.

Battens should be spaced with a maximum of 600mm centres apart. This should be reduced in high wind load areas or if there are only 2 battens.

Batten sizes • Standard fixing – 50mm x 38mm

• Joints and corners - please refer to Appendix B

The wall battens should be level. Irregularities in the installation of the framing and sheathing will be visible in the finished application.

3. Fix EPDM gasket to the battens

The presence of the EPDM gasket provides additional weather protection to the battens and prevents premature rotting.

The 60mm wide RCM EPDM gasket should be installed to each batten by stapling to the top of the batten then allowing the gasket roll to drop thereby taking out any slack, then staple at regular intervals down the length of the batten and trim to size.

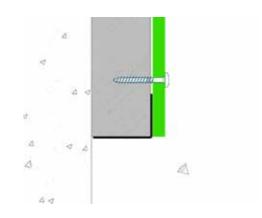
Care must be taken not to stretch the EPDM as this could result in it pulling away from the staple fixing.

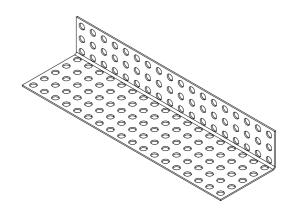
4. Attach perforated closures to top and bottom of the battens

The aluminium perforated closure is available in various depths 40mm, 50mm, 70mm, 100mm and 120mm to allow for different insulation requirements and in 2.5 metre lengths.

The closures should be screwed or nailed to both the top and bottom of the battens. They are designed to allow for air flow through the system whilst preventing access for birds, rodents and large insects.

Perforated closures should also be attached to each door, sill and window head, to prevent animal or insect access whilst maintaining ventilation flow.





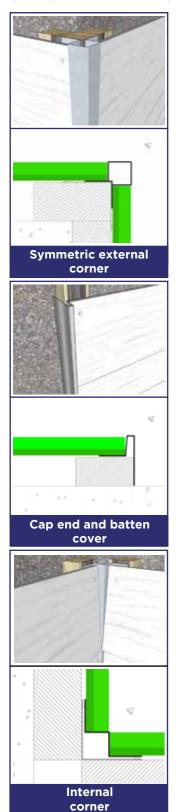
11279 Page 10 of 32 Version 4 - October 2017 11279 Page 11 of 32 Version 4 - October 2017



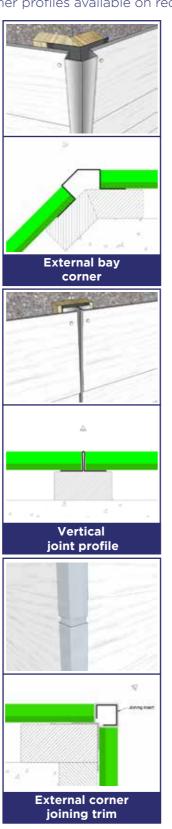


5. Fix vertical profiles

Position, level, screw or nail end, corner and window profiles into place. Other profiles available on request.

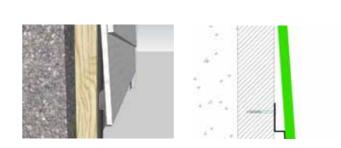


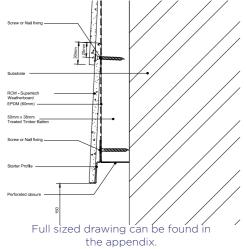




6. Fix horizontal starter profiles

When installing the starter profile it is vitally important that it is fixed on a level plane with either nails or screws. The starter profile will angle the first weatherboard into position to ensure that the appearance is correct with the rest of the installation.





7. Cut and fix Supertech Weatherboard

A. Horizontal

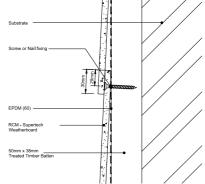
Decide on your horizontal laying pattern

- Straight or butt jointed
- Free pattern (with extra care required for joints)
- Semi pattern or broken bond

Place the first Supertech Weatherboard plank onto the starter profile. Ensure that the plank is fixed to every batten it crosses. The end of every plank must also coincide with a batten. Lengths of over 400mm must be fixed to at least 3 battens.

Fixings must be a minimum of 20mm from the edges of the Supertech Weatherboard as shown on p8.

Overlap the next plank by 30mm, fix into place then continue fixing Supertech Weatherboard up the wall using the same method.



Each plank must be fixed at least once to every support. Allow at least 150mm between bottom edge of Supertech Weatherboard and the ground. Fixing is done through the upper edges of the weatherboard.

There is no side overlap, the planks are loose butt jointed against one another with the joint coinciding with a timber support.

11279 Page 12 of 32 Version 4 - October 2017 11279 Page 13 of 32 Version 4 - October 2017



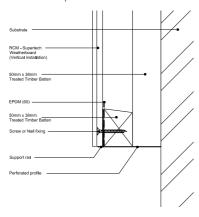


B. Vertical

Decide on your vertical laying pattern

- Lapped: Weatherboard should be overlapped by 30mm and all fixings will be visible on the face of the board.
- Flat: Place the first Supertech Weatherboard onto a level 'L' profile, fix backed to the horizontal batten as shown.
- Undulated: With fixings remaining visible Supertech is laid based on an over under pattern.

When installing Supertech Weatherboard vertically you must ensure that the vertical batten is installed at 600mm centres and then a horizontal batten is then fixed on top of the vertical battens at 600mm centres. This allows full air flow behind the Supertech as well as creating fixing points. Please call our technical team for information on all profiles required.



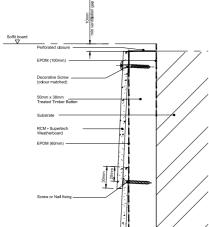
8. Jointing of Supertech Weatherboard

When jointing two Supertech Weatherboards, fix both planks to one batten. Please be sure the EPDM gasket is already installed to the battens as this will provide a protective strip against moisture ingress.

Planks should be loose butt jointed together, do not use force.

9. Finishing Supertech Weatherboard at the top of the wall

The fixings on the top plank will remain visible, therefore we recommend the use of colour matched Supertech Weatherboard screws in order to achieve best results.



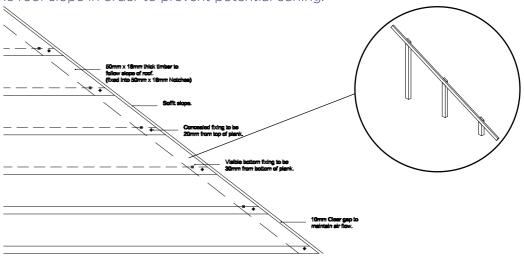
Full sized drawing can be found in the appendix.

11279 Page 14 of 32 Version 4 - October 2017

10. Abutments and gables

If the Supertech Weatherboard abuts another material and no end trims are required do not allow the end of weatherboard to be more than 100mm past the last fixing point.

If a gable end has a triangular abutment, fix the board both top and bottom to the batten that is parallel to the roof slope in order to prevent potential curling.



11. Corner options

There are several options for finishing internal and external corners.

A. Overlapping corner

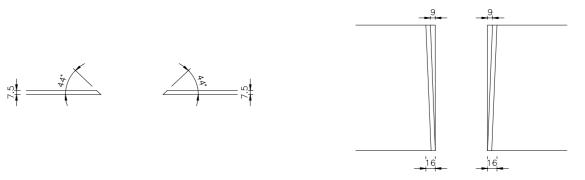
You can overlap the side of one board with the end of the plank on the other side. With this method, one end of the plank will always be showing meaning that the ends of the plank will require painting in order to match the overall finish of the Supertech Weatherboard.

B. Mitred corner

11279

In order to achieve a mitred cut on a 90-degree corner, the weatherboard planks should be cut 23mm longer on the bottom and 13mm longer on the top than the dimensions of the corner of the support battens. Cut the boards at an angle of 44 degrees through the full depth of the plank. It is common practice to mark at 45 degrees and then undercut the weatherboard.

When cutting a different corner angles, dimensions and angles should be recalculated and tested to ensure correct.

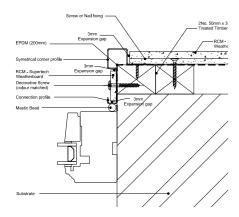


Page 15 of 32 Version 4 - October 2017

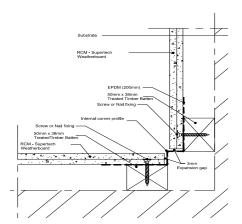




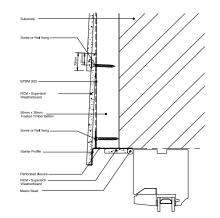
C. External corner detail



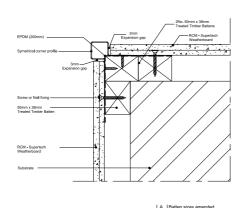
D. Internal corner detail



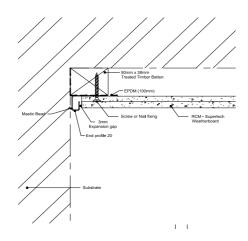
12. Window details

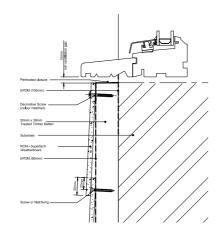


A. Typical window head detail



E. Corner abutment with end profile



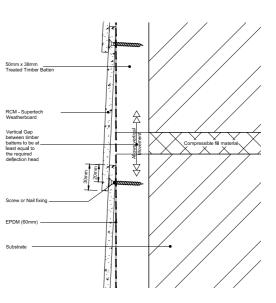


B. Typical window sill detail

13. Deflection head details

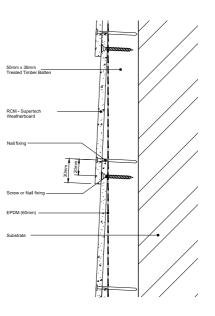
A gap equal to or greater than the designed deflection head must be maintained when installing vertical timber battens in order to allow for movement.

If you have a deflection head in a coastal location please contact our technical department for details.



14. Coastal location

When installing Supertech Weatherboard in coastal areas we recommend that additional fixings are used to reduce the chances of board movement.



Full sized drawings can be found in the appendix.

11279 Page 16 of 32 Version 4 - October 2017 11279 Page 17 of 32 Version 4 - October 2017

Full sized drawings can be found in the appendix.





Efflorescence

As with all cement based materials, efflorescence (Lime Bloom) can occur but this is only a temporary aesthetic problem. It will not cause any damage to the performance of the weatherboard.

Efflorescence is caused by the ingress of water behind the boards which dissolves salts contained in the weatherboard. This salt water can then pass through the boards and result in salt deposits being left when the water finally evaporates.

Inadequate storage and installation are the key causes of efflorescence. When installing or storing Supertech Weatherboards in very wet conditions water retention can occur between the weatherboard. We recommend that you follow our storage and handling information in order to reduce the chance or efflorescence and maintain the appearance of the weatherboards.

The length of time that these salt deposits will remain depends on the quantity of salts and the weather conditions that the weatherboards are exposed to. Rain and wind will help contribute to the removal of these deposits. Alternatively, carefully using warm water and a soft brush or cloth can help speed up the removal and regain the desired appearance. Extra care and attention should be taken in order to ensure no damage is caused to the painted surface.

If the above is proving ineffective then the salt deposits can be removed by wiping a 9.5% acetic acid over the surface. We recommend a small patch test first to ensure no damage will be created to the painted surface. Without allowing the solution to dry, leave it on for a few minutes and then wash away with lots of cold water without allowing run off's to touch unaffected areas. This can be repeated if required.

Maintenance

With normal UK weather conditions, Supertech Weatherboard does not require a great deal of maintenance to maintain its strength, properties and function. Environmental impacts may, however, influence the visual appearance. It is, however, best practice to complete an annual inspection of the façade to ensure the integrity of the ventilation gaps, fixings and joints and action any required maintenance to prolong overall life expectancy.

For coastal locations with generally more aggressive salt laden moist air and wind driven sand more frequent inspections and general maintenance may be required with particular attention to corners around doors and windows and façade corner details especially when they face the direction of prevailing winds.

Supertech weatherboard can be cleaned with cold or tepid water with the addition of very mild household cleaning products (no solvents or bleach) using a soft cloth. Washing should commence at the top and work down the façade in a structured manner. All washed areas should be rinsed with clean water and as with all similar applications, a small non-visible test area should be completed first. It is considered best practice to clean the weatherboard at least once a year. High-pressure jet washers and strong detergents should never be used.

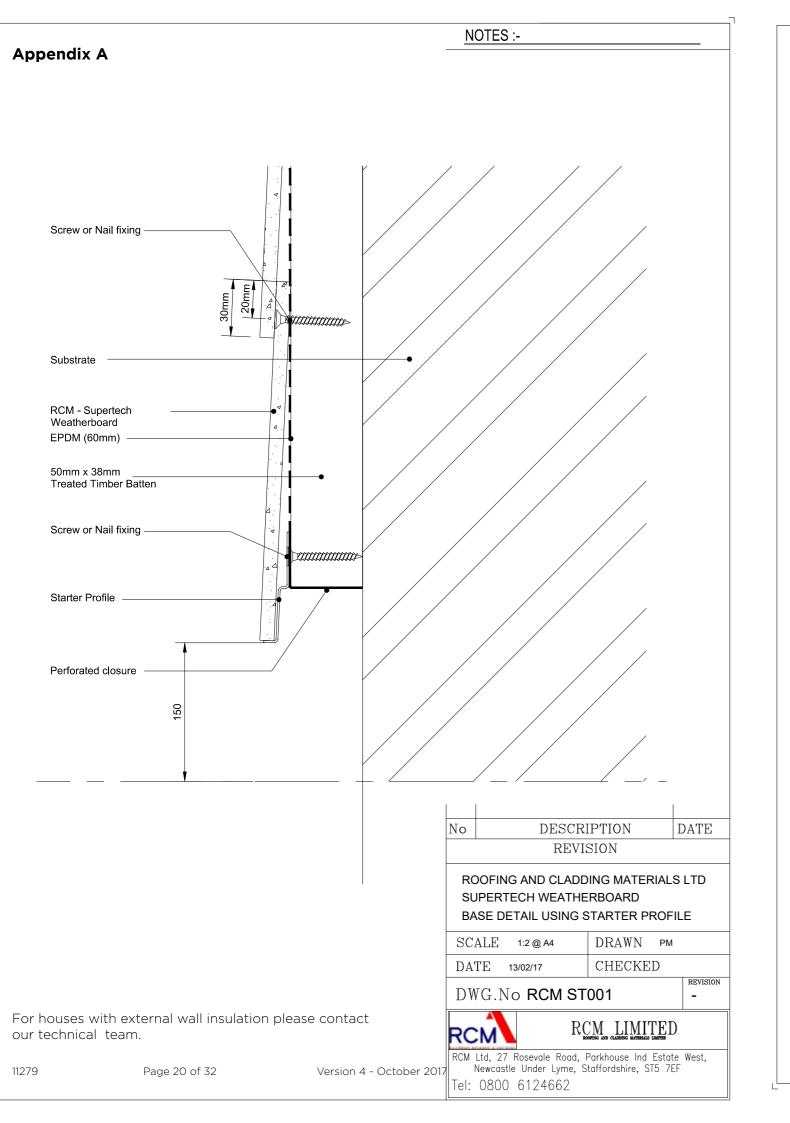
Appendix of drawings

- A. RCM ST001 Base details using starter profile
- B. RCM ST002 External corner (Symmetrical)
- C. RCM ST003 Internal corner
- D. RCM ST004 External corner (Asymmetrical)
- E. RCM ST005 End profile 20 (Abutment)
- F. RCM ST006 Typical window head detail
- G. RCM ST007 Typical window sill detail
- H. RCM ST008 Soffit detail
- I. RCM ST009 End profile 60 (Stop End)
- J. RCM ST010 Deflection head detail
- K. RCM ST011 Coastal or high wind areas

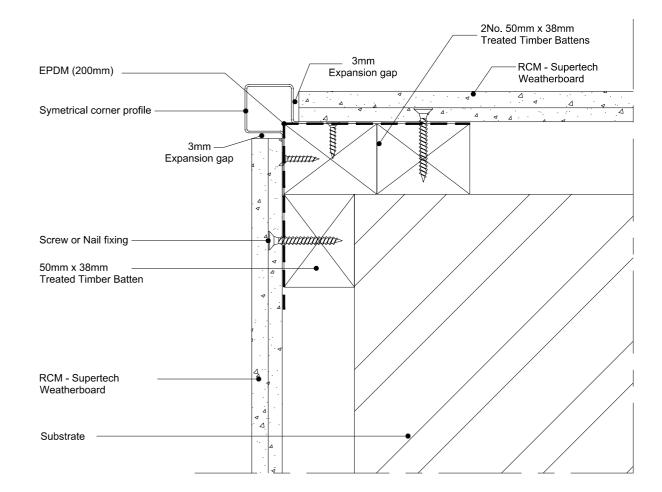
Contact details

RCM (Roofing and Cladding Materials Ltd)
Tel: 0800 612 4662
Email: info@rcmltd.biz
www.buildingboards.co.uk

11279 Page 18 of 32 Version 4 - October 2017 11279 Page 19 of 32 Version 4 - October 2017



Appendix B



A Batten sizes amended 23.10.17 DESCRIPTION DATE REVISION

ROOFING AND CLADDING MATERIALS LTD SUPERTECH WEATHERBOARD EXTERNAL CORNER (SYMMETRICAL)

SCALE 1:2 @ A4 DRAWN PM CHECKED DATE 13/02/17 REVISION Α

DWG.No RCM ST002



NOTES:-

RCM LIMITED

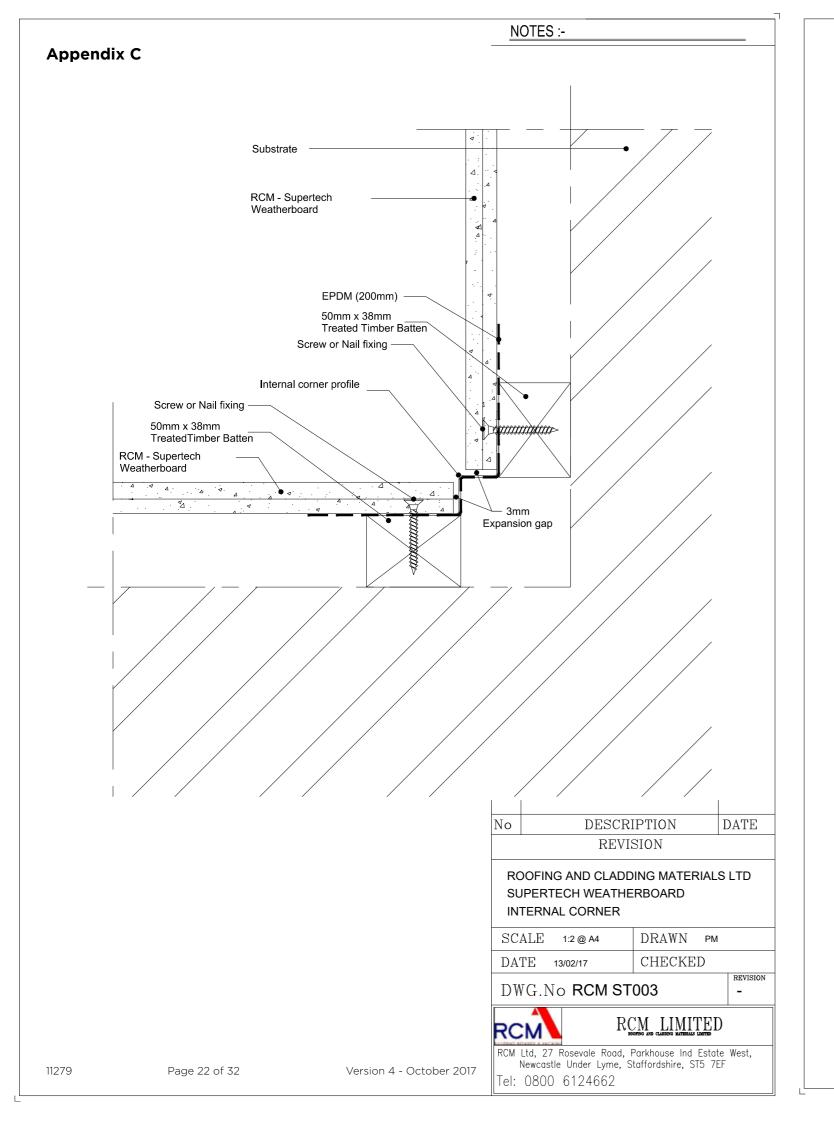
RCM Ltd, 27 Rosevale Road, Parkhouse Ind Estate West, Newcastle Under Lyme, Staffordshire, ST5 7EF

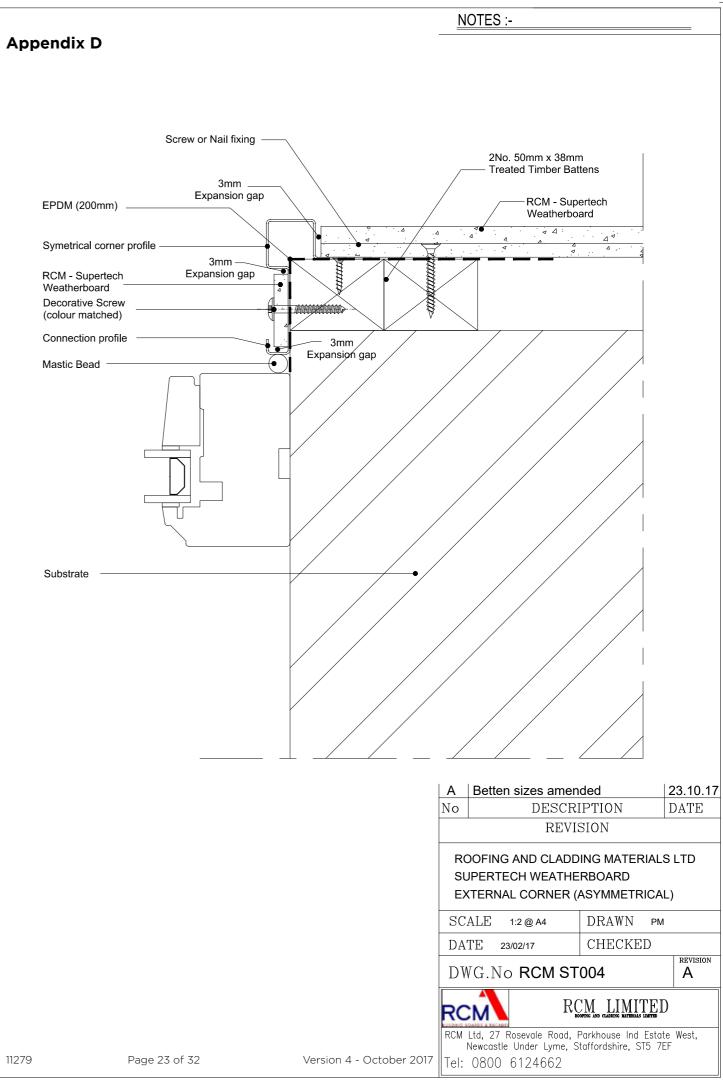
Page 21 of 32

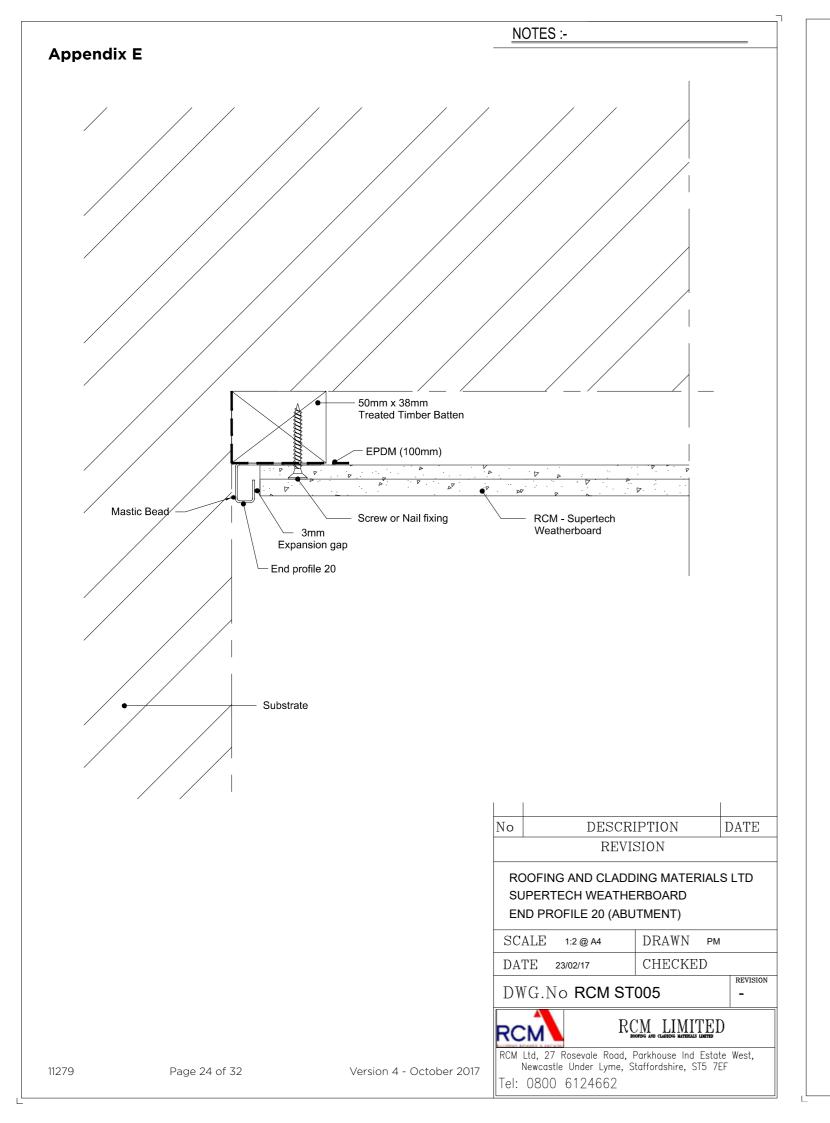
11279

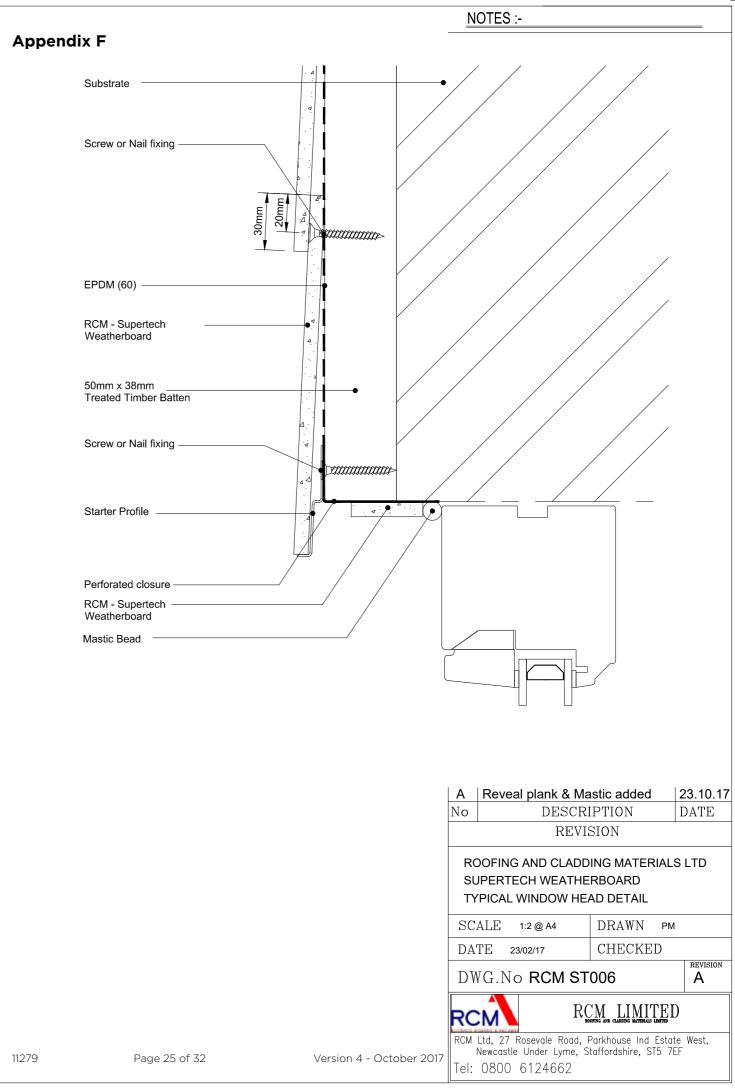
Version 4 - October 2017

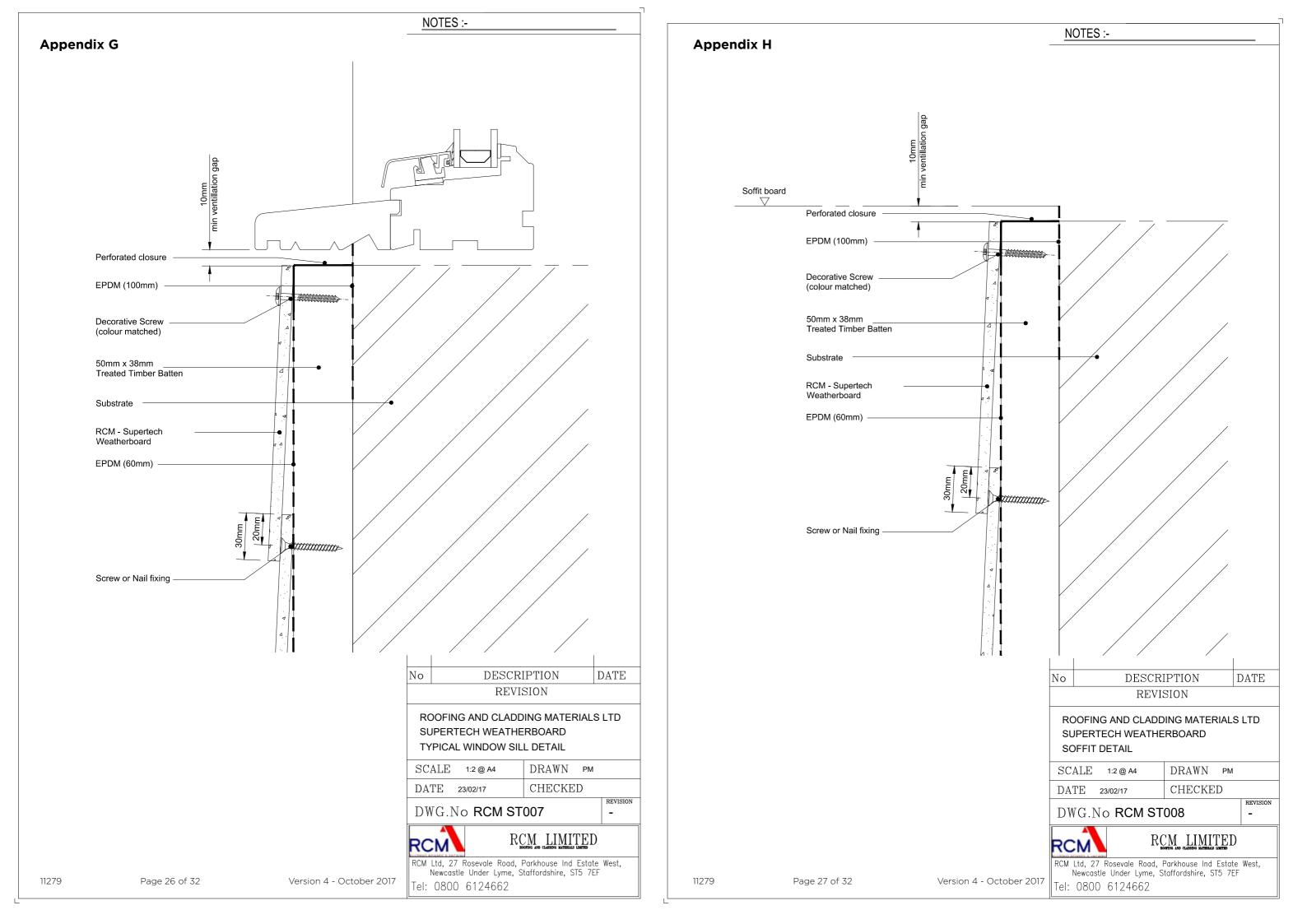
Tel: 0800 6124662

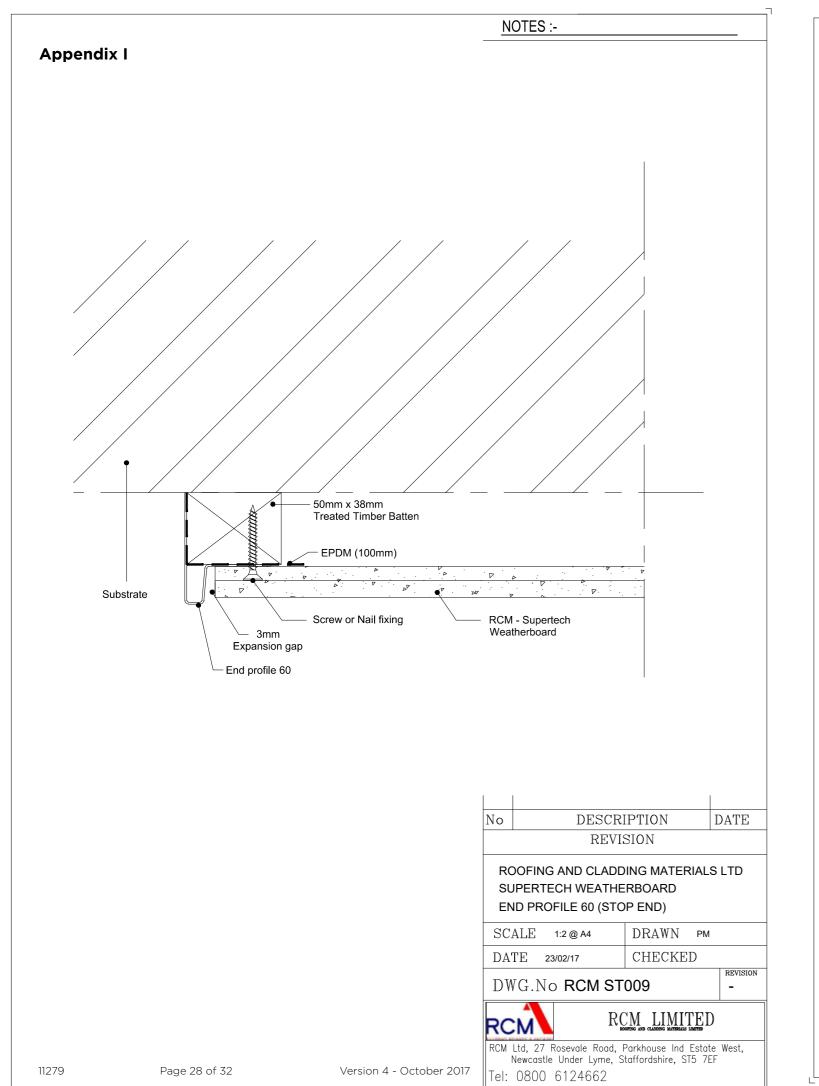


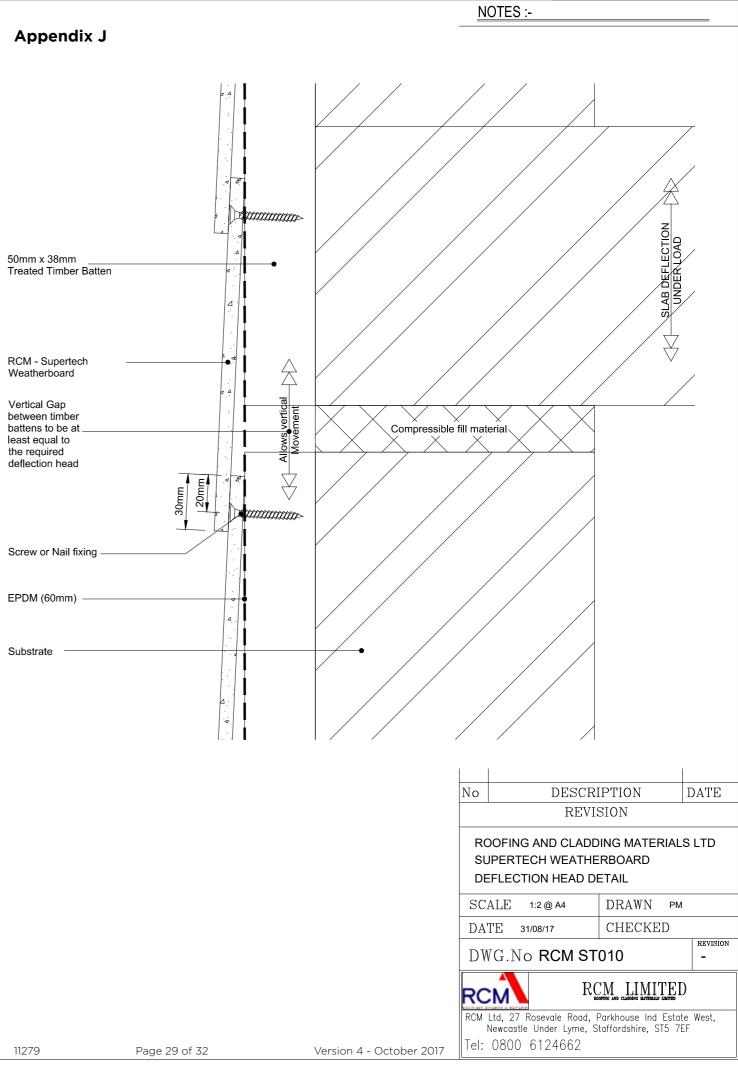


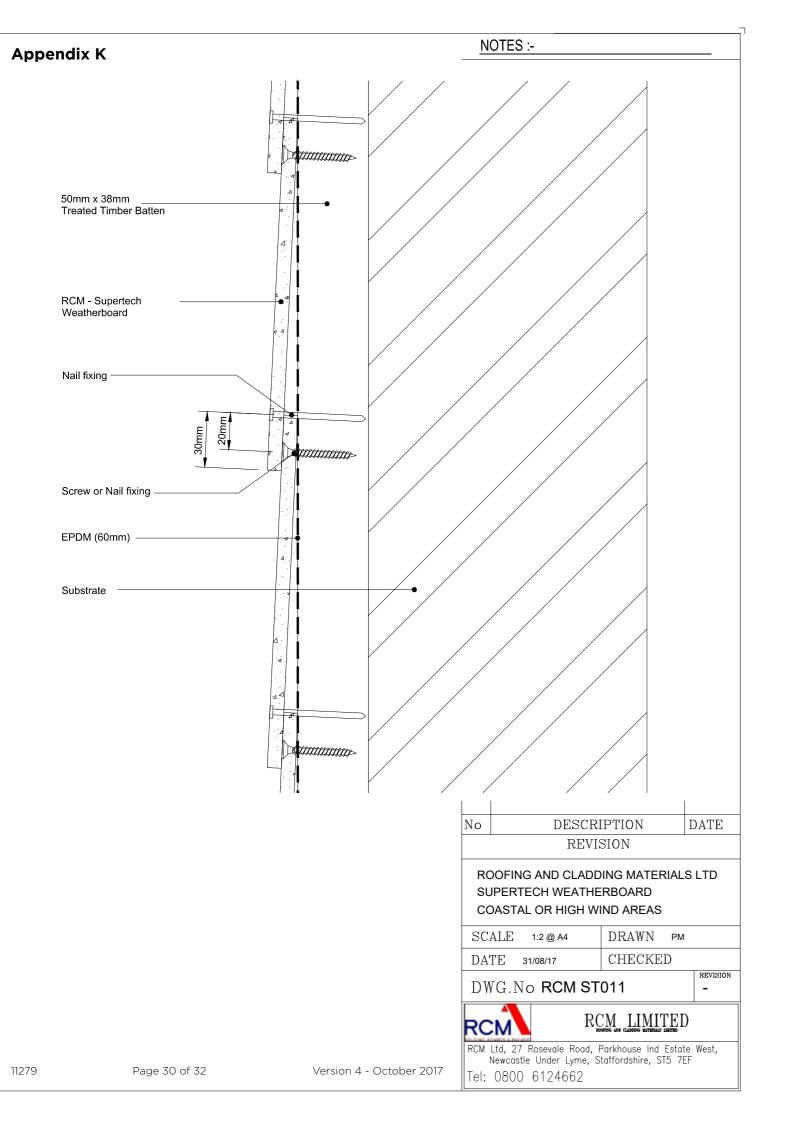














About RCM

Established in 2004, RCM is a major supplier of complete through wall solutions to the UK construction industry. Supplying specialist building boards, façades, breather membranes and airtightness solutions, RCM offers a fully integrated approach to the building envelope whilst delivering on time and budget.

At our core, RCM offer a wide and varied range of building boards, providing a solution for all structural applications. From timber to steel frame, concrete to modular, high to low rise, internal to external wall linings and buildings with high weather exposure, we offer a solution.

RCM are a market leader in providing innovative products and solutions; finding the latest technology is an ethos which lies at the very heart of our business and one which separates us from the competition. At the forefront of industry research and development, we constantly strive to innovate and develop our range of solutions. By providing a complete solution, from a single supplier, we can help reduce costs, time and hassle.

RCM work openly in collaboration with clients and supply-chain partners to mutual benefit to ensure that the most efficient and appropriate solutions can be found for every project.

At RCM we take great care to ensure that we offer a complete service, from initial advice through to delivery. Our experienced and complimentary technical support team can provide advice at all stages of your project to help you achieve your vision. We offer a service which is flexible and meets your needs whilst remaining competitive. A fully integrated fabrication service allows customers to order both boards and façades to exact size in order to reduce construction time, minimise wastage and improve environmental impact.

RCM's products are specified for use in external façades, fire protection, acoustic, airtightness and decorative applications amongst other uses.

RCM (Roofing and Cladding Materials Ltd) Tel: 0800 612 4662 Email: info@rcmltd.biz www.buildingboards.co.uk

11279 Page 31 of 32 Version 4 - October 2017







