SOL CONSERVATORY ROOFS LIMITED

SOLid
solid tiled roof

INSTALLATION GUIDE

SOL Conservatory Roofs are your trade supplier for all thing roofing

Whether it's a glass roof, solid tiled roof, glass roof skypod or roof lantern - we have the equipment and the skills to manufacture your products in the swiftest time possible, allowing you to work to your customer's time allocations, and not ours.

As a market leader in conservatory roof manufacturing, our team of experts is on hand to support you with the initial set-up as well as answering any technical or installation queries.

CONTENTS

HEALTH & SAFETY NOTES

For any installation we recommend that a competent person carries out the installation process and we also strongly advise that Personal Protective Equipment (PPE) is used throughout the installation process to ensure protection from any potential health and safety risks.

Before starting installation please read full Health & Safety guidance at *www.solroofs.co.uk/health-and-safety*

PPE REQUIRED

Safety boots

Gloves

Protective glasses or goggles

Hard hat and safety mask

WASTE DISPOSAL

Please dispose of all waste items during or after the installation in line with current legislation and guidelines.

IMPORTANT NOTES PRIOR TO INSTALLATION PROCESS

Note 1 - We strongly advise that the installation should take place in dry conditions for the best results and time-scales of installation.

Note 2 - All component lifting should be done in pairs as minimum.

Note 3 - Please follow all health and safety notes to ensure safe use of all materials and parts provided.

Note 4 - Please check your parts list for all items prior to starting this installation process.

IMPORTANT NOTES PRIOR TO INSTALLATION PROCESS

We recommend the below timeline for installation; this would be subject to weather conditions on any given day and the speed of the installation team. No roof should be erected in heavy rain fall or below freezing conditions.

Day 1 - Floor

Day 2 - Walls and roof (roof covering in full subject to weather conditions)

Day 3 - Complete roof covering if required, roof trims, fascias & guttering, windows and doors.

Day 4 - External wall trims and beadings etc and internal items as necessary.

Day 5 - Any works that lapse during days 1-4.

PRE-INSTALLATION CHECKS

1

AFTER UNPACKING, CHECK ALL COMPONENTS AGAINST THE ORDER ACKNOWLEDGMENT FROM SOL AND ENSURE ALL ARE PARTS ARE ACCOUNTED FOR.

2

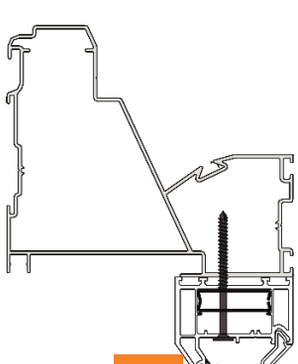
PRIOR TO COMMENCING ANY INSTALLATION WORK, THE SIZE, TYPE AND CONDITION OF ALL COMPONENTS SHOULD BE CHECKED AGAINST THE SURVEY DOCUMENT.

3

IF RETRO-FITTING

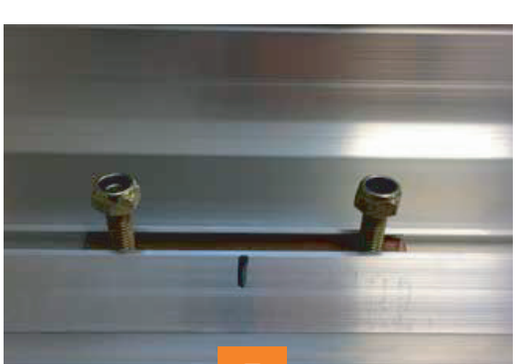
ENSURE THE EXISTING CONSERVATORY IS STRUCTURALLY SOUND BEFORE CONDUCTING ANY INSTALLATION WORK.

PREPARING THE RING BEAM



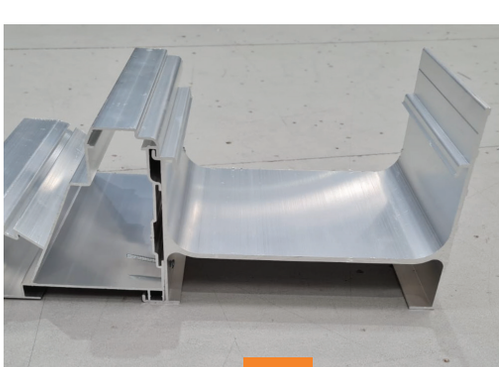
4

FIRST ASSESS NEW RING BEAM FIXING POINTS AND HOW THIS CAN BE ACHIEVED, AS ALL BUILDS CAN DIFFER



5

ALL M6 X 30MM FLAT PLATE STUDS SHOULD ALREADY BE SET IN POSITION OF THE STUDS ON THE RING BEAM. CHECK THE POSITION OF THE STUDS AND SLIDE IN ANY ADDITIONAL IF REQUIRED.



6

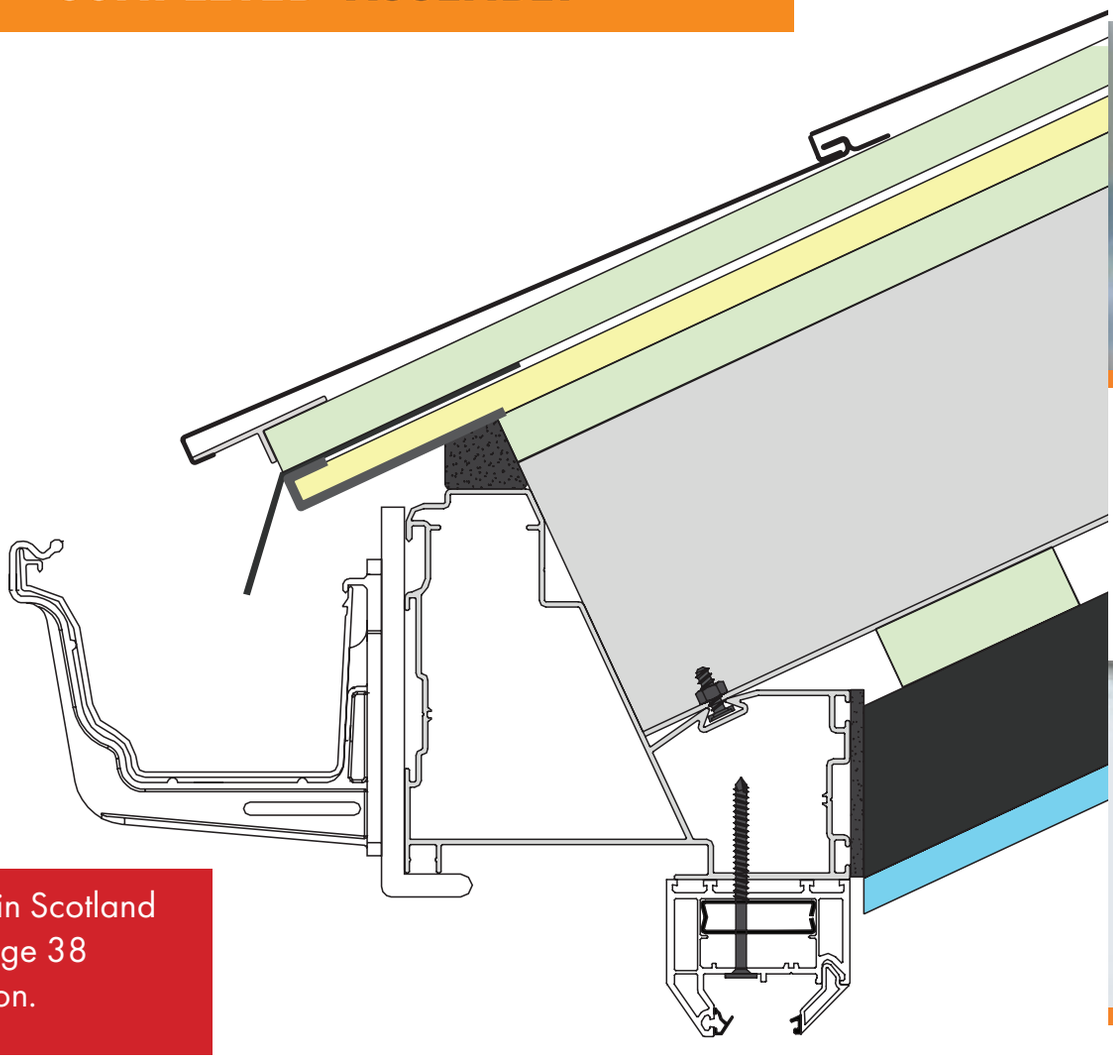
WHERE BOX GUTTER IS REQUIRED

FIX THE PRE-CUT BOX GUTTER TO THE PROPERTY WITH APPROPRIATE FIXINGS AT 400MM CENTRES. INSTALL THE RING BEAM CLEATS BEFORE FIXING THE RING BEAM TO THE BOX GUTTER USING 4.2 X 38LG SCREWS AT 400MM CENTRES.

COMPLETED ASSEMBLY

KEY

- ALUMINIUM
- LATHS
- OSB
- INSULATION
- PLASTERBOARD



Please note: if installating in Scotland or Wales please refer to page 38 before starting the installation.

INSTALLING THE FRAMEWORK

1

ALIGN THE LOCATING NIB WITH THE FRONT EDGE OF THE WALL/FRAMES AND MEASURE TO ENSURE EACH END OF THE RING BEAM IS THE SAME DISTANCE FROM THE BRICK OR FRAMES

2

CONTINUE LOCATING THE RING BEAM USING THE INTERNAL AND EXTERNAL BRACKETS AND SELF-DRILL SCREWS

3

ENSURE THE WINDOW FRAMES ARE CORRECTLY ALIGNED AND THE INTERNAL OF THE EAVES BEAM IS FLUSH WITH THE INTERNAL FRAME LINE

4

ONCE THE RING BEAM IS IN PLACE, SCREW UP FROM THE FRAME USING 55MM SELF-DRILL BAY POLE SCREWS TO SECURE 300MM CENTRES, ENSURING YOU KEEP 150MM AWAY FROM ANY WELDED FRAME POINT

5

IF NECESSARY, TIDY UP ANY PLASTER SO THE NEW GABLE RAFTERS GO UP TO THE HOST WALL

6

USING PRE-POSITIONED STUDS, LOCATE THE RAFTERS IN THE RING BEAM AND RIDGE IN THE MARKED POSITIONS. DO NOT FULLY TIGHTEN THE NUTS. AGAIN, CHECK THE ALIGNMENT OF THE FRAMES.

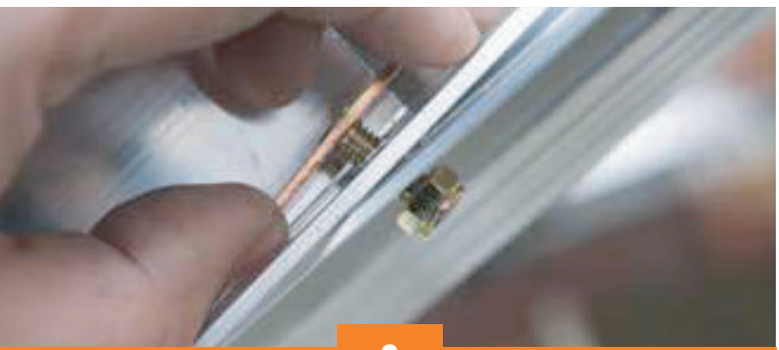
7

ONCE THE RIDGE IS IN PLACE, LOCATE THE HIPS. ALIGNING THE CENTRE OF THE HIP WITH THE CORNER OF THE FRAMES

8

THE HIPS ARE A TWO-PART COMPONENT AND LOCATE INTO THE RING BEAM AND REST ON THE WOK

INSTALLING THE FRAMEWORK

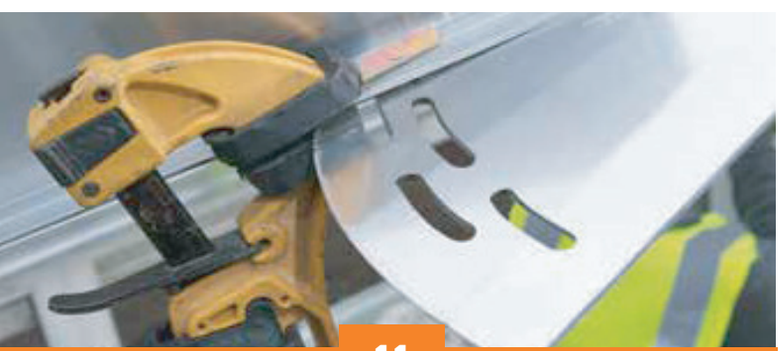


9

LOCATE ANY JACK RAFTERS ON THE RING BEAM AND STUDS. USE SINGLE STUDS APPLIED TO FIX THE TOP OF THE JACK RAFTERS TO THE HIP. DO NOT TIGHTEN.

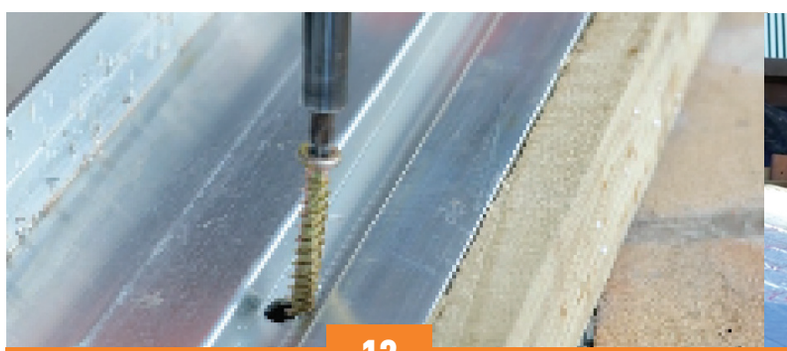
10

CHECK THE HEIGHT AND LEVEL OF THE RIDGE. ENSURE RAFTERS ARE ALIGNED. TIGHTEN ALL NUTS IN THE RIDGE, RING BEAM, JACK RAFTERS AND HIPS AND ENSURE THE RIDGE HEIGHT MATCHES PAPERWORK



11

CLAMP THE WOK TO THE HIP. USE M6 X 50LG BOLTS, NUTS AND WASHERS SUPPLIED INTO THE PRE-DRILLED HOLES AND BOLT TOGETHER. DO NOT FULLY TIGHTEN.



12

ENSURE JACK RAFTERS AND HIPS ARE CORRECTLY ALIGNED. SET HIPS IN POSITION USING 40MM SELF-TAPPING SCREWS THEN TIGHTEN ALL REMAINING NUTS

13

FIX GABLE RAFTERS AT 400MM CENTRES TO THE BACK WALL USING SUITABLE FIXINGS (NOT SUPPLIED)

14

19X 38MM BATTENS ON THE TOP FACE OF ALL RAFTERS ARE PRE-INSTALLED AT MANUFACTURE

INSULATING AND WATERPROOFING

1

ONCE ALL OF THE FRAMEWORK FOR THE ROOF IS ASSEMBLED AND TIGHTENED, INSTALL THE PRE-CUT 100MM INSULATION

2

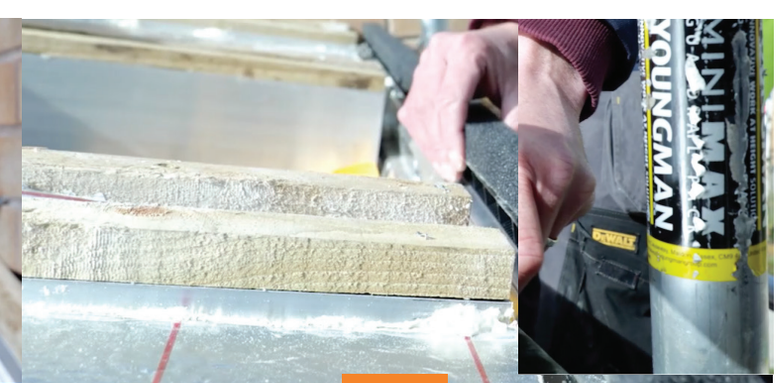
ENSURE THE INSULATION IS FULLY SEALED DOWN TO MEET THE BASE OF THE RAFTERS.

3

USE AN APPROPRIATE FIRE RETARDANT FOAM TO SEAL THE GAPS AROUND THE INSULATION

4

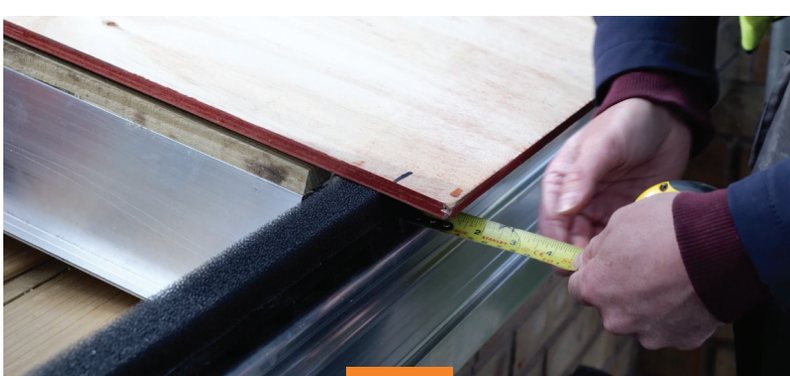
INSERT CAVITY INSULATION BETWEEN CROWN AND RIDGE AND IN THE VOID AT THE BOTTOM OF THE HIP



5

INSTALL THE FOAM STRIP ALONG THE RING BEAM

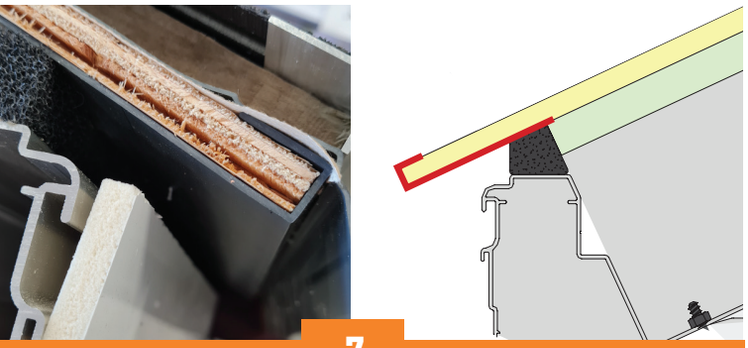
PLEASE NOTE IF FITTING A SOLSIRIUS ROOF, DO NOT INSTALL THE FOAM STRIP IN THE GLAZING AREAS



6

ENSURE A 40MM OVERHANG OVER THE RING BEAM

INSULATING AND WATERPROOFING



7

ENSURE THE OSB IS FITTED WITH THE TRIM WITH THE SHORT SIDE UP

8

FIX 55MM FROM THE FRONT EDGE USING 20MM SELF-DRILLING SCREWS. CONTINUE OVER THE REST OF THE ROOF WITH 65MM SELF-DRILLING SCREWS POSITIONED 300MM APART

9

ONCE THE OSB IS FITTED, MEASURE AND TRIM THE DRIP TRAY

10

FIT THE DRIP TRAY AROUND THE EDGE OF THE ROOF

11

COVER THE ROOF WITH A BREATHABLE MEMBRANE

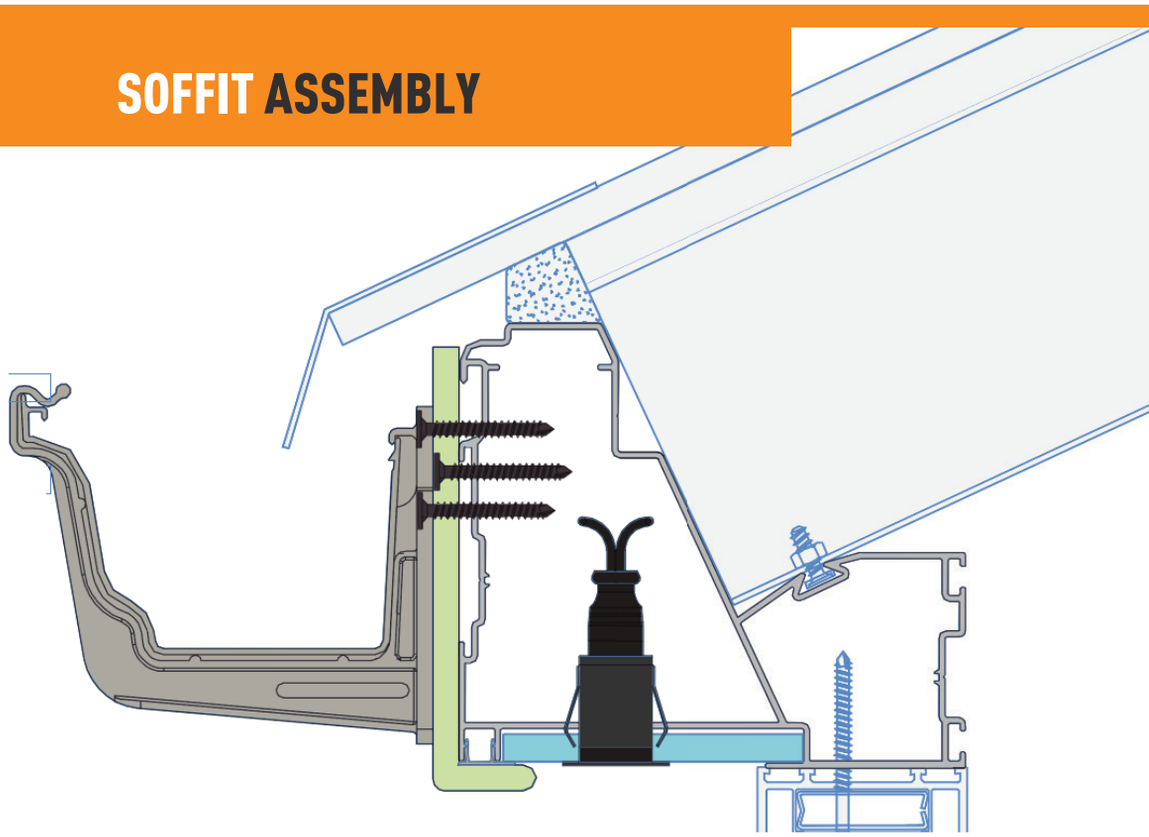
12

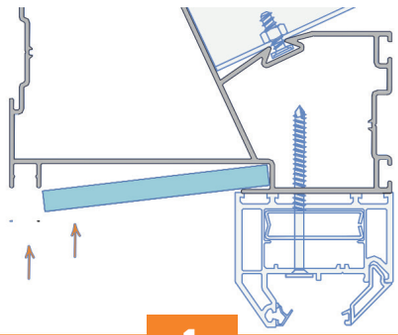
ENSURE A 50MM OVERHANG OVER THE EDGE OF THE ROOF (TRIM LATER) FIX INTO PLACE WITH STAPLE GUN

SOFFIT ASSEMBLY

KEY

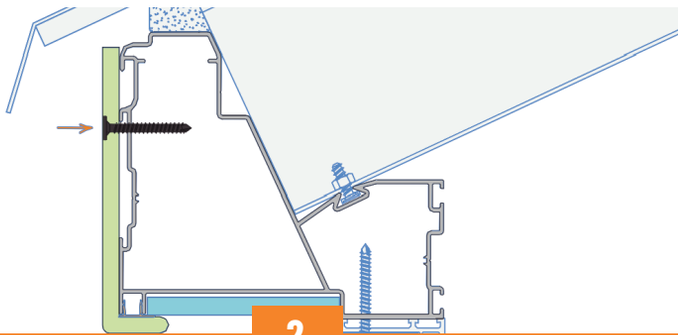
- GUTTER
- FASCIA
- SOFFIT LIGHT
- SOFFIT BOARD





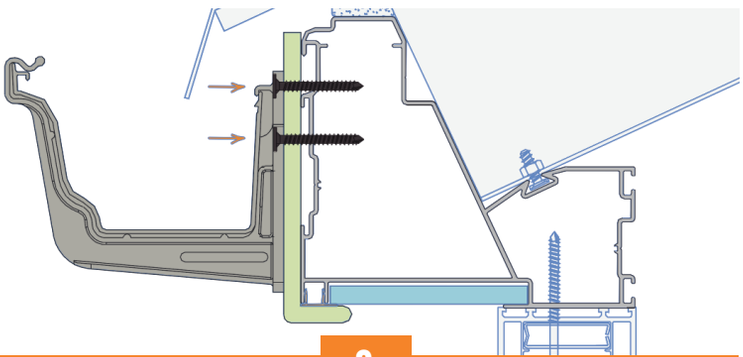
1

INSERT THE REAR EDGE OF THE 100MM SOFFIT BOARD INTO THE CHANNEL UNDERNEATH THE EAVES BEAM



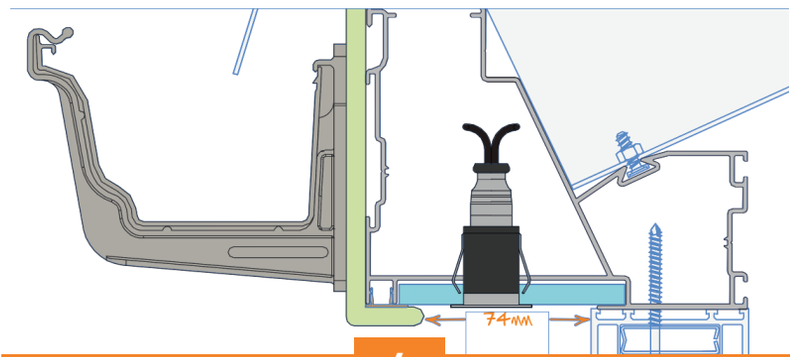
2

POSITION THE 150MM FASCIA BOARD AND TEMPORARILY FIX USING A LIMITED AMOUNT OF FIXING AT ENDS AND MID SPAN. ENSURE THE FIXINGS ARE POSITIONED HIGH AND BEHIND THE GUTTER BRACKET LOCATIONS



3

INSTALL GUTTER BRACKETS USING 4.2 X 38LG SCREWS GIVING SLIGHT FALL TO DOWNPIPE POSITIONS IF POSSIBLE. IF BOX GUTTERS EXIST, ENSURE GUTTES ALIGN WITH ADAPTORS. GUTTER BRACKETS SHOULD BE SPACED AT 800MM CENTRES MAX. FINISH WITH SEALANT FROM FRAME / BRICK TO SOFFIT



4

ANY LIGHTING UNIT MUST BE FITTED BY A COMPONENT AND QUALIFIED ELECTRICIAN. ENSURE OVERALL LIGHTING DIMENSIONS ARE SMALLER THAN 70MM AND THE BODY INC. CONNECTION FITS WITHIN THE PROFILE CAVITY

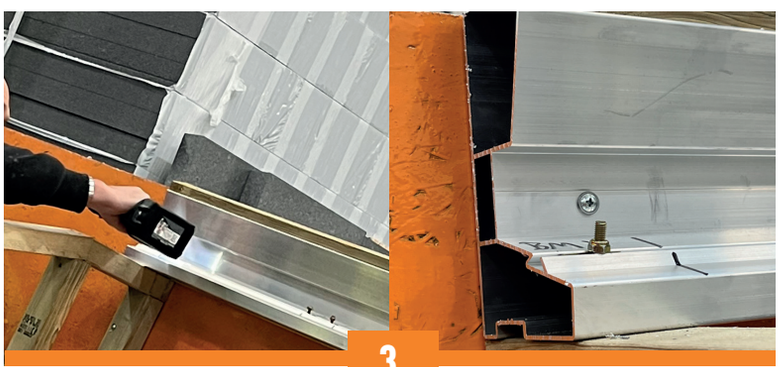
LEAN-TO ROOF INSTALLATION - SOLID ROOF

1

AFTER PREPARING THE RING BEAM, AND INSTALLING BASE FRAMEWORK AS DETAILED ON PAGES 5 AND 6, ATTACH THE SUPPLIED WEDGE TO FRAMEWORK USING APPROPRIATE FIXING FOR YOUR WINDOW OR SHAPED WEDGE.

2

AFTER FIXING INTO PLACE MEASURE THE STRUCTURE TO ENSURE STRUCTURE IS CORRECT TO ORDER AND EQUAL AT BOTH SIDES.



3

ONCE HAPPY WITH THE STRUCTURE PLACE WALL PLATE TO THE HEIGHT SHOWN ON THE PAPERWORK SUPPLIED. USE A SPIRIT LEVEL TO MAKE SURE THAT STRUCTURE IS LEVEL AND SECURE.

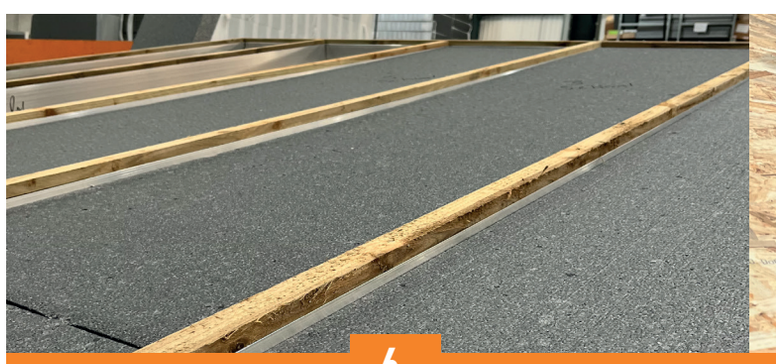
4

FIX RAFTERS AND END RAFTERS TO WALLPLATE AND EAVES BEAM WITH BOLTS PROVIDED, INSTALL YOUR SHAPED FRAMES TO SIDE AND FIX DOWN INTO LOWER WINDOW AND UP INTO THE RAFTERS AND INTO THE HOST WALL TO SECURE IN PLACE.

5

ATTACH REMAINING GABLE RAFTERS ACROSS TOP OF ROOF FRAMES - THE ALUMINIUM STRUCTURE WILL BE MARKED WHERE THEY NEED TO BE PLACED.

TIP: PLACE INSULATION BETWEEN RAFTERS BEFORE CONTINUING TO ENSURE GABLE FRAMES ARE IN CORRECT POSITION.

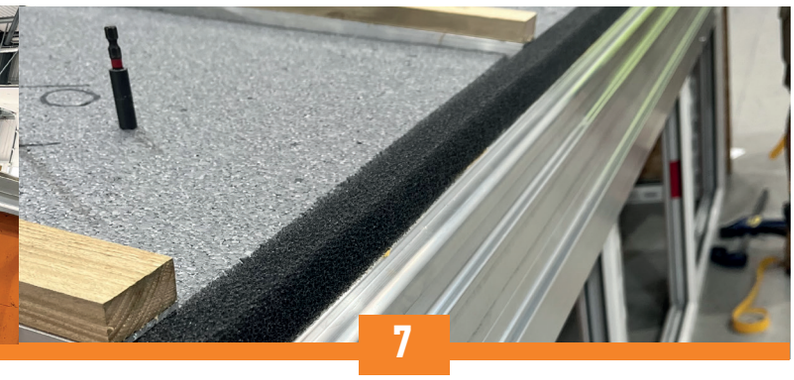


6

ONCE HAPPY WITH GABLE RAFTER PLACEMENT PLACE INTERNAL INSULATION INBETWEEN RAFTERS.

INSULATION WILL BE NUMBERED FOR EASY FITTING. USE EXPANDING FOAM TO FILL ANY GAPS IN THE INSULATION.

LEAN-TO ROOF INSTALLATION - SOLID ROOF



7

APPLY FOAM STRIP ALONG EAVES BEAM BELOW INSULATION.

8

ATTACH OSB BOARDS TO WOOD RAFTERS ENSURE 40MM OVERHANG. THE OSB BOARDS WILL ARRIVE NUMBERED TO ENSURE EASY FITTING.

9

ATTACH OSB TRIM ALONG BOTTOM OF OSB AND TRIM ANY EXCESS.

10

ATTACH EAVES GUARD ACROSS BOTTOM OF THE OSB OVERLAPPING THE OSB TRIM.

11

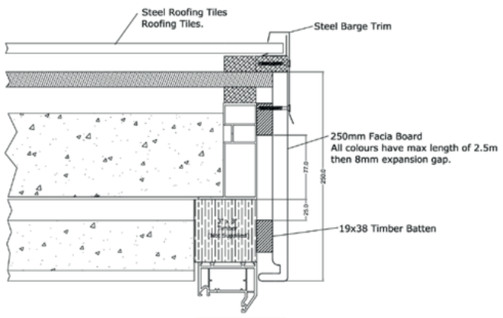
ATTACH MEMBRANE ACROSS USB USING A HAMMER TACKER AND TRIM THE EXCESS. ENSURE EACH LAYER OF MEMBRANE OVERLAPS THE PREVIOUS LAYER. THE MEMBRANE SHOULD OVERHANG OVER THE EAVES GUARD.

12

ATTACH THE TILE BATONS TOP OF STRUCTURE AT 200MM SPACINGS.

NOTE: ENSURE TILE BATONS ARE INSTALLED VERTICALLY.

LEAN-TO ROOF INSTALLATION - SOLID ROOF

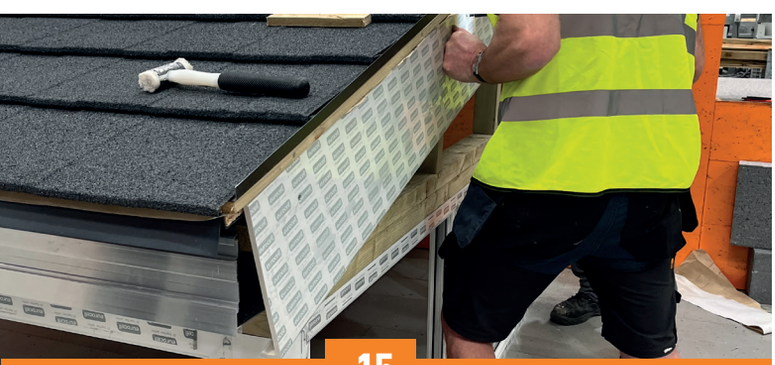


13

ATTACH TIMBER BATONS TO WEDGE USING APPROPRIATE FIXINGS. (DOUBLE BATTONS).

14

PLACE SOAKER ACROSS END BATON AND HOLD INTO PLACE. THE FIRST TILE CLEAT SHOULD SIT FLUSH ACROSS THE TOP OF THE BARGE. THEN REFER TO PAGE 34 FOR SLATE TILE INSTALLATION.



15

ATTACH 250MM CAPPING BOARD TO STRUCTURE.

16

ATTACH THE BARGE ON TOP OF THE SOAKER TO KEEP EVERYTHING IN PLACE.

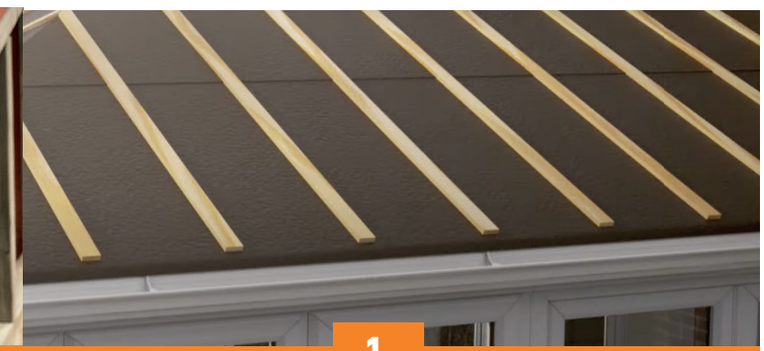
17

ATTACH BOX END ONTO FRAME AND FIX INTO PLACE. ADDITIONAL SILICONE WILL NEED TO BE USED TO ENSURE ALL AREAS ARE FULLY SEALED.

18

THE BARGE WILL SIT OVER THIS AS DEPICATED IN IMAGE FOR NEAT FINISH.

TILE APPLICATION - SOLID SHINGLE



1

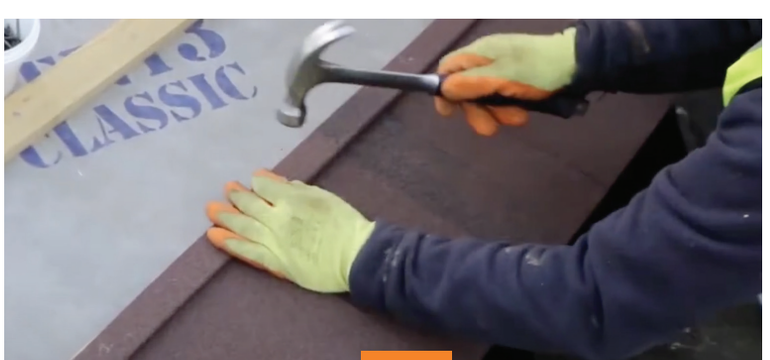
FIX TILING AT 200MM CENTRES VERTICALLY.

2

FIX THE TILE STARTER CLEAT.

3

HOOK THE FIRST TILE OVER THE CLEAT TO LOCATE.



4

FIX THE FIRST SHINGLE USING 4 NAILS OR SCREWS EVENLY. WORK FROM RIGHT TO LEFT AND CONTINUE TO LAY THE TILES, ENSURING THEY INTERLOCK CORRECTLY. NAIL EACH TILE AT THE LOWEST POINT INTO THE EAVES BATTEN.

5

MEASURE AND CUT THE TILES AT THE HIPS AND / OR WALL.

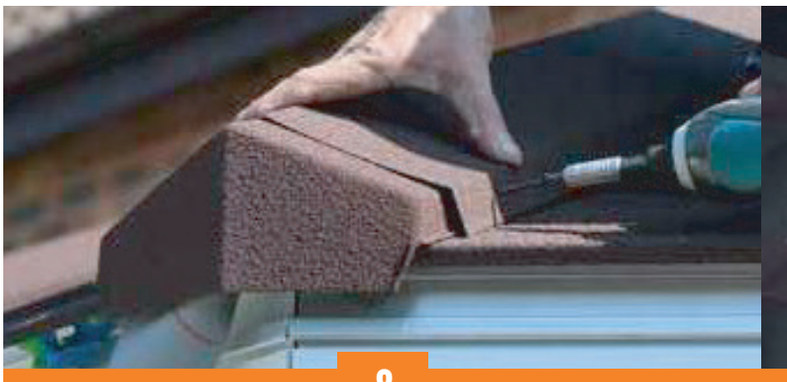
6

CONTINUE TO INSTALL THE TILES.

TILE APPLICATION - SOLID SHINGLE

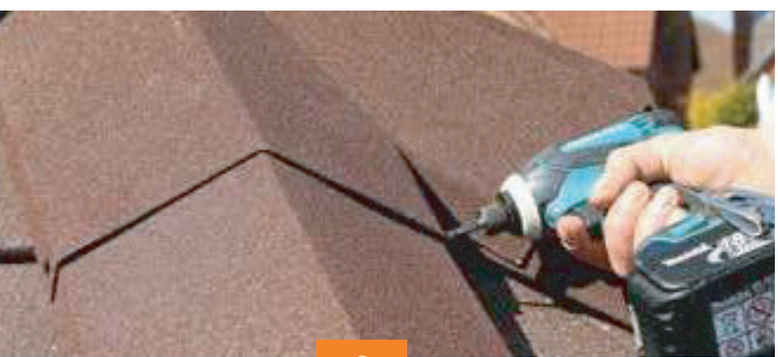
7

ONCE THE ROOF IS FULLY TILED, LAY THE FRAMEWORK TO TILE THE RIDGES. USING A RIDGE TILE TO SET THE WIDTH, FIX TIMBER BATTENS OVER RIDGE AND HIP.



8

AFFIX RIDGE TILES AND FINISH WITH END CAPS.



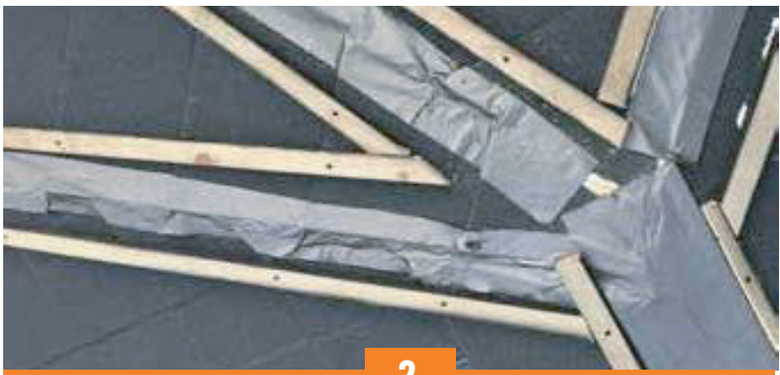
9

COMPLETE THE TILING BY FITTING THE RIDGE MOULDING.

NON-STANDARD ROOF CROWN - SOLID SHINGLE

1

ONCE THE RIDGE TILE POSITION HAS BEEN ESTABLISHED, MARK THE FLASH WITH THE CENTRAL LOCATION OF EACH HIP. THIS WILL INDENTIFY THE CAPPING POINT.



2

USING THE RIDGE TILE POSITION, FIX THE BATTENS FOR THE RIDGE AND HIPS TO CREATE A FRAMEWORK FOR THE CAP. THE RIDGE TILES RUNNING UP THE HIPS SHOULD BE SPREAD TO REDUCE THE HEIGHT, SO THEY FIT UNDER THE RIDGE.

3

ONCE THE CAP IS CREATED, USE THE CENTRE LINE DRAWN IN STEP 1 TO LINE UP AND MARK THE TILES THAN COVER THE HIPS.

4

ONCE YOU ARE HAPPY WITH THE POSITION OF THE TILES, YOU CAN CUT THEM TO SIT IN POSITION.

5

CONTINUE WORKING YOUR WAY AROUND THE CAP, CUTTING EACH RIDGE TILE INTO THE PREVIOUS ONE.

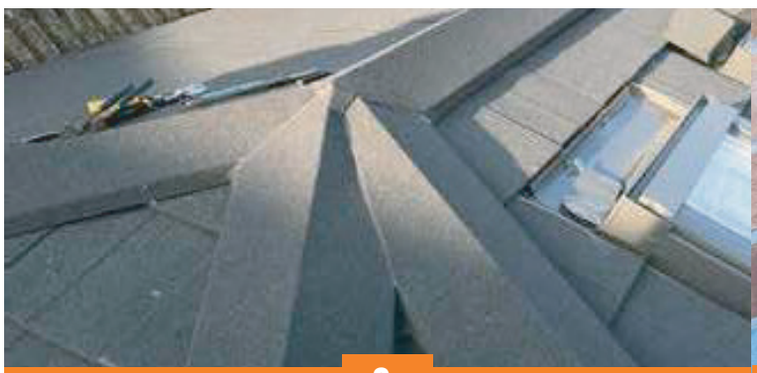
6

ONCE THE HIP TILES ARE IN PLACE, POSITION THE RIDGE TILE. MARK CAREFULLY SO THE RIDGE TILE SITS AT THE CAP OF THE ROOF.

NON-STANDARD ROOF CROWN - SOLID SHINGLE

8

CUT THE TILE AND FIT INTO POSITION.



9

USE GLUE AND DUST KIT IF ADDITIONAL COVER OF THE JOINS IS REQUIRED.

FINISHING AND INTERNAL INSULATION

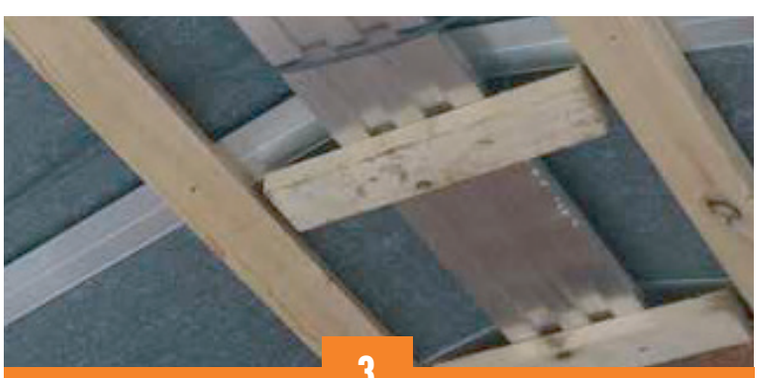
1

IF EXISTING LEAD IS IN GOOD CONDITION AND APPROPRIATE LENGTH FOR THE NEW ROOF CONSTRUCTION, REPOSITION IT TO COMPLETE THE EXTERNAL INSTALLATION. IF LEAD WORK REQUIRES REPLACING ENSURE THE VERTICAL DROP AND TILE COVERAGE MEETING APPROPRIATE GUIDELINES.

2

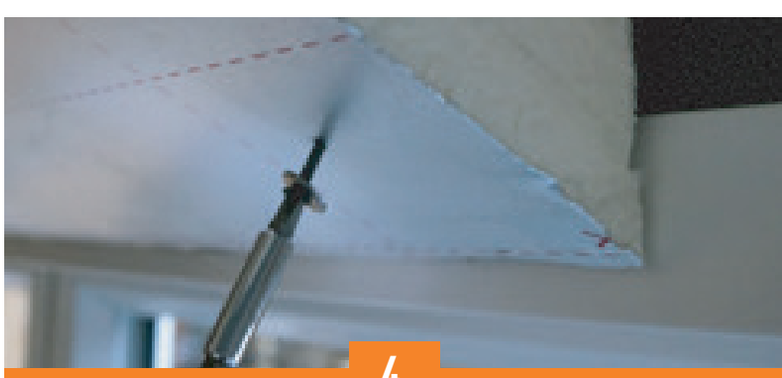
WE ADVISE CARRYING OUT A WATER TEST FOR ALL TILE TYPES USING A HOSE TO REPRESENT HEAVY RAINFALL

THE WATER SHOULD FALL VERTICALLY, DO NOT DIRECT WATER UP THE TILE JOINTS.



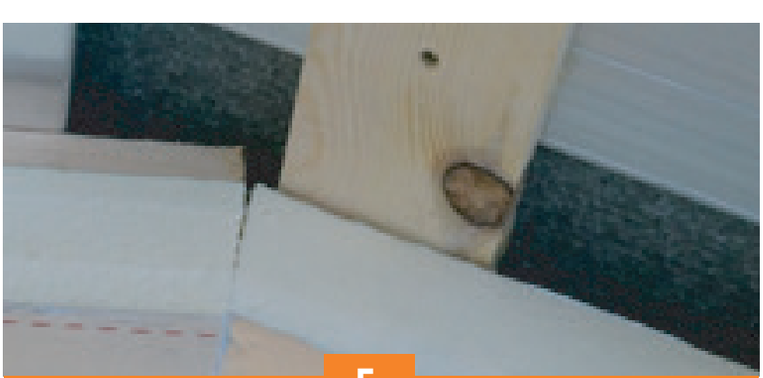
3

FIX HORIZONTAL BATTENS ONTO THE BASE OF THE RIDGE AT 600MM CENTRES, OR ALTERNATIVELY FIX TO RAFTER BATTENS LOWER DOWN TO CREATE A VAULTED CEILING.



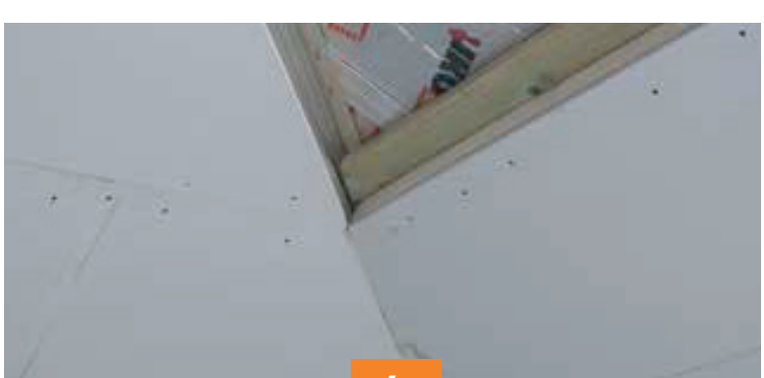
4

USING STOCK SHEETS OF 50MM PIR, MITRE THE BOTTOM EDGE TO SUIT THE ROOF PITCH, ENSURE IT IS FLUSH.



5

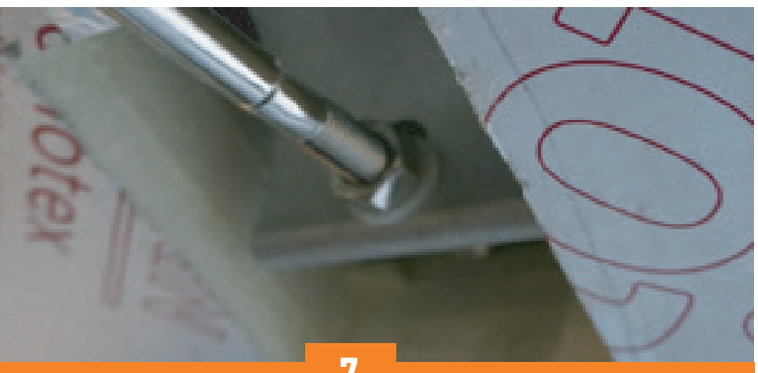
CONTINUE TO INSTALL INSULATION AROUND THE ROOF, USE HIP AND VALLEY CENTRES, AS MEASUREMENT REFERENCES AND ENSURE CUTS HAVE APPROPRIATE MITRES WHERE NECESSARY. GAPS BETWEEN INSULATION SHOULD BE KEPT TO A MINIMUM.



6

PROCEED FROM THE BOTTOM OF THE ROOF WORKING UPWARDS, CUTTING THE SHAPES FROM THE STOCK SHEETS TO FIT THE ROOF FACES.

FINISHING AND INTERNAL INSULATION

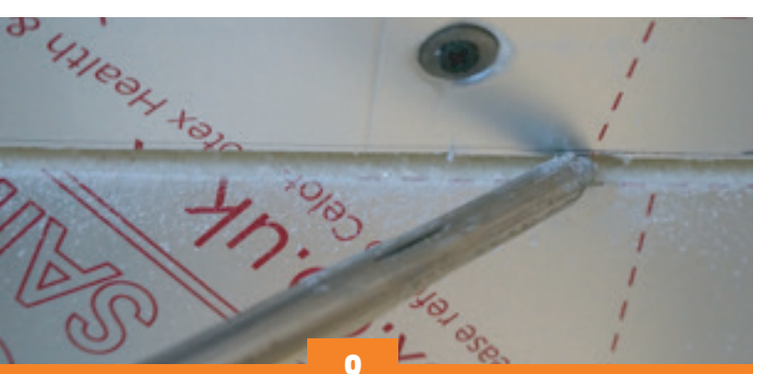


7

IF TIRE WIRES HAVE BEEN INSTALLED, CUT TWO INSULATION SHEETS SO THE JOINT IS IN LINE WITH THE TIE WIRE, THEN MARK OUT THE TIRE WIRE BRACKET LOCATION AND CUT AWAY THE MINIMUM AMOUNT OF INSULATION.

8

FILL THE VOID WITH AN APPROPRIATE EXPANDING FOAM TO FULLY COVER THE BRACKET. LEAVE FOAM TO SET AND TRIM ANY EXCESS AWAY BEFORE COVERING WITH PIR FOIL TAPE.

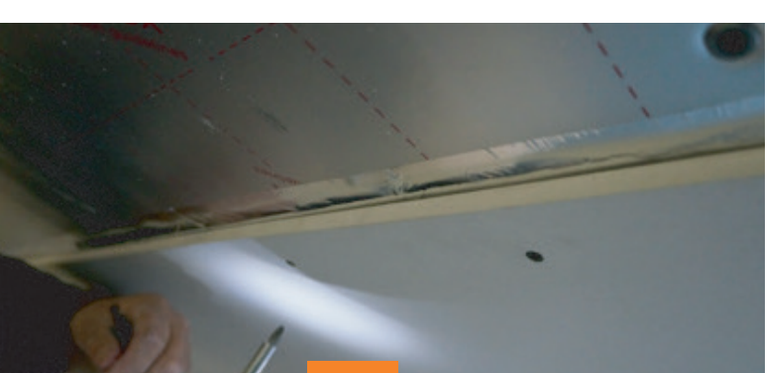


9

ENSURE ANY GAPS IN BETWEEN THE INSULATION ARE FILLED WITH AN APPROPRIATE EXPANDING FOAM AND ALL JOINTS ARE TAPED.

10

ONCE ALL JOINTS ARE SEALED, INSTALL THE 12.5MM PLASTERBOARD USING 100MM DRYWALL SCREWS, ENSURING THEY PICK UP THE BATTENS.

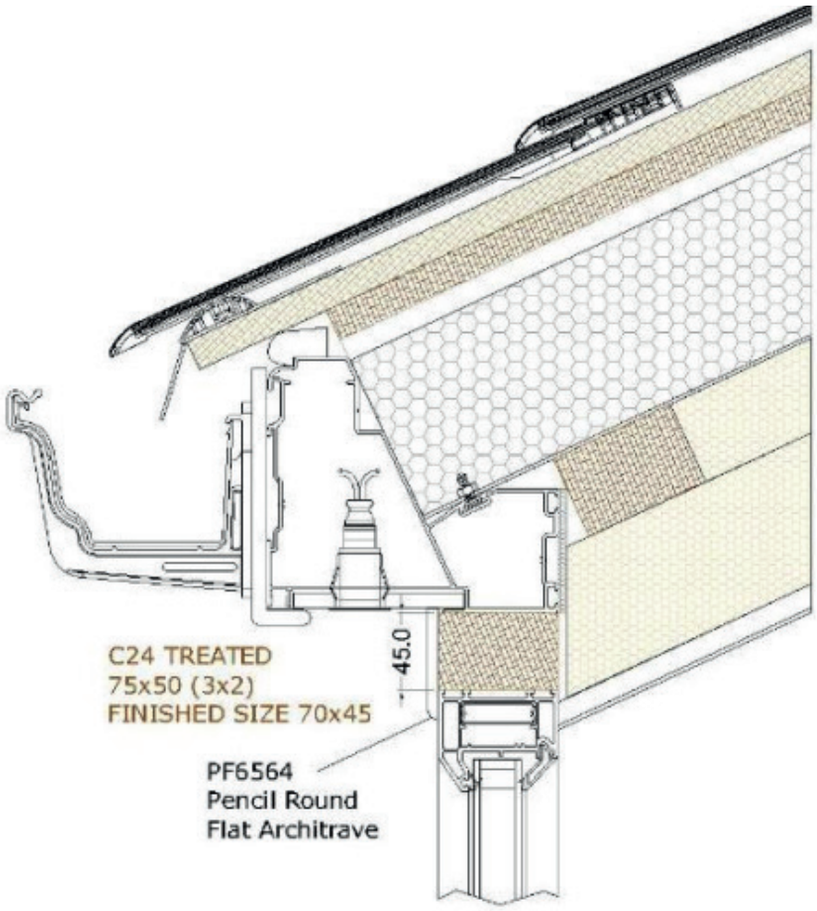


11

DRYWALL SCREWS SHOULD BE INSTALLED AT 300MM CENTRES, 10MM FROM BOUND AND 13MM FROM CUT EDGES.

THE ROOF IS NOW READY FOR PLASTERING.

ON 0.12 U VALUE ROOFS - SCOTTLAND & WALES



18mm OSB3 Boards

31.5mm Air Gap

100mm Stylite ThermPlus Insulation

50mm Celotex GA4050 PIR Insulation

80mm Celotex GA4080 PIR Insulation

12.5mm Plasterboard

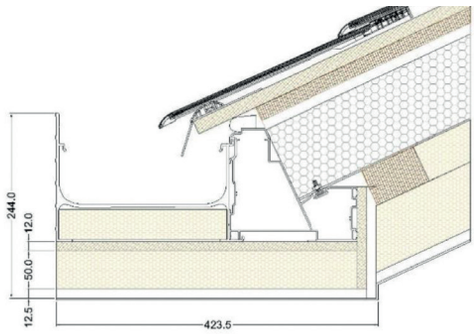
1

EAVES BEAM PACKING: THE SOFFIT EAVES WILL REQUIRE PACKING UP BY 45MM TREATED TIMBER.

2

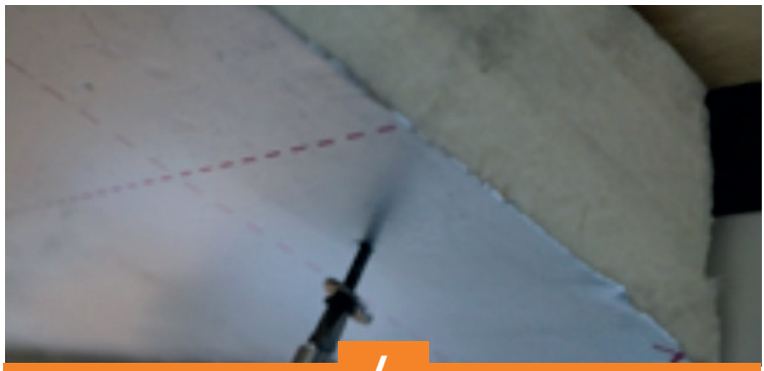
THE CURRENT 75MM TIMBER PACKER USED ON GABLE FRAMES WILL NEED TO INCREASE TO ALLOW FOR THE ADDITIONAL ROOF THICKNESS - THIS WILL NOW REQUIRE 125MM TIMBER PACKER.

ON 0.12 U VALUE ROOFS - SCOTTLAND & WALES



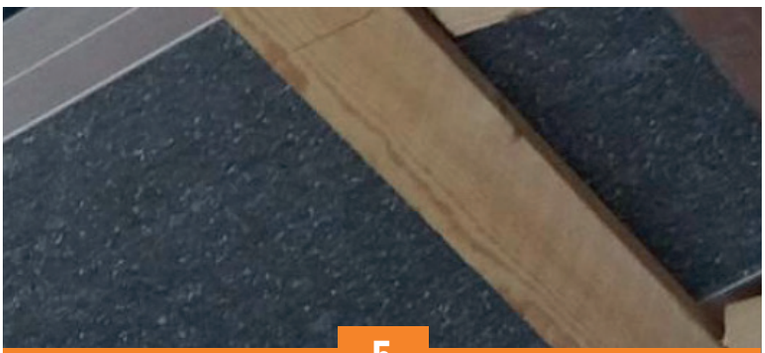
3

BOX GUTTER INSULATION - WILL NOW REQUIRE 50MM PIR INSUALTION TO THE BOTTOM OF THE BOX GUTTER.



4

THE PREVIOUS VOIDS BETWEEN THE INTERNAL BATTENS WILL NOW BE FILLED WITH 50MM PIR INSULATION.



5

WHEN FITTING INTERNAL BATTENS PLEASE ENSURE A 50MM THICK BATTEN IS INSTALLED TO MEET SCOTTISH AND WELSH BUILDING REGULATIONS.

6

THE THICKNESS OF THE INTERNAL PIR WAS PREVIOUSLY 60MM – THIS WILL BE INCREASED TO 80MM THICK.

NOTES

TECHNICAL & INSTALLATION

Our team are on hand to answer technical queries you might have about the installation of our products.

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