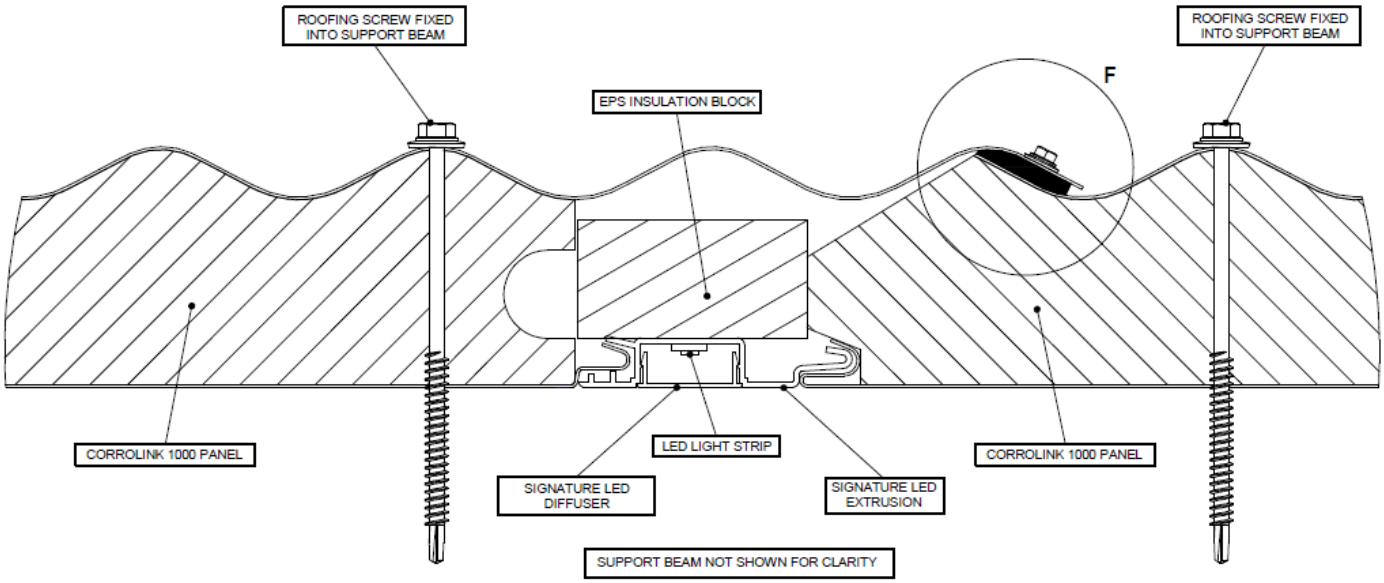
Installation Guide:
Signature LED Light System into Corrolink 1000 roof panels

General Arrangement

Corrolink 1000 with Signature LED Light System.



Important

This Installation guide should be used in conjunction with the current Versiclad Roofing Engineering Booklet, available from Versiclad.

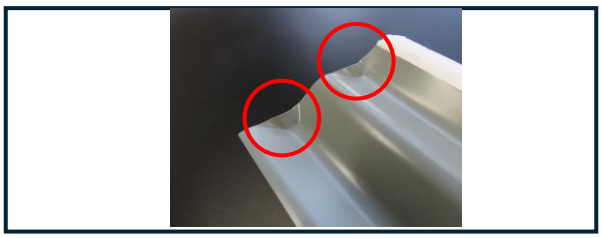
Installation should follow specifications in that document, including fastener specifications (size and quantity), for the particular style of roof panel being installed and the materials being fastened to.

The installer is responsible for ensuring that any structures that Versiclad roof panels are installed to are structurally adequate to withstand the additional loads (including wind and self-weight) imposed by installation of roof panels.

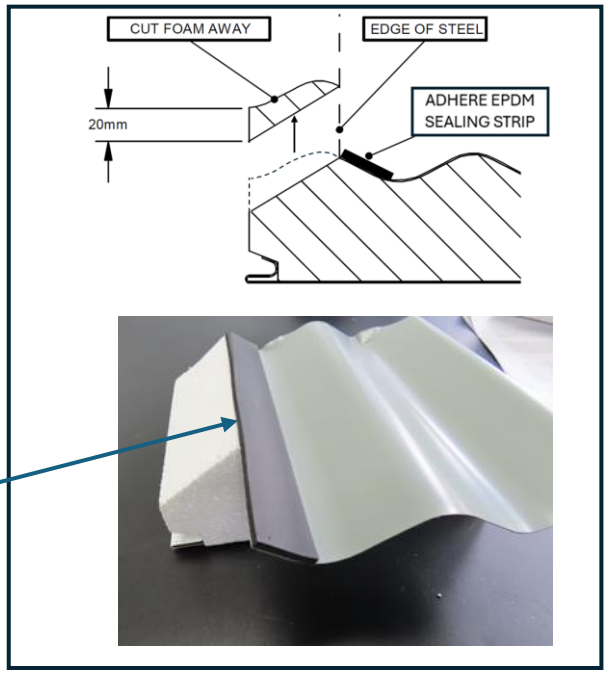
QR to access CONDET-19, 23, 24 as referenced in this document.

IMPORTANT: Check if you require a licenced electrician to install power supply for your LED lights. Many LED Light strips require a standard 240V Power outlet to plug into.

1 Turn up the ends of all Corrolink 1000 panels.



2 Prepare the non-overlap edge of each Corrolink1000 panel that will house a Signature LED extrusion by trimming the EPS foam over the length of the panel as shown. After cleaning the top of the panel, attach the self-adhesive EPDM Foam strip to the panel over its entire length in the position shown (align the edge of the EPDM strip with the steel edge of the corrugated top roof skin).

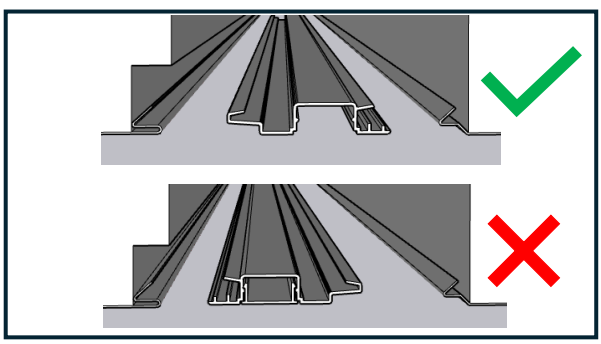


EPDM Foam strip adhered over entire length of panel

3 Prepare the LED extrusion and LED Acrylic diffuser by cutting to length. Ensure they are cut shorter than the bottom skin of the roof panels to take into account thermal expansion and contraction. Refer to Drawing CONDET-23 for guidance on Thermal expansion and contraction. Note that the Acrylic diffuser will expand and contract at a greater rate than the Aluminium LED extrusion. IF YOU NEED TO JOIN TWO EXTRUSIONS TO MAKE A LONGER LENGTH REFER TO PAGE 7 ON DRAWING CONDET 23 FOR DETAILS. IF YOU DO NOT MECHANICALLY JOIN THE EXTRUSIONS THEY MAY SEPARATE IN USE AND DAMAGE THE LED LIGHT STRIP.

THE ACRYLIC DIFFUSER CAN BE JOINED USING SUPAGLUE. ENSURE THE ENDS TO BE JOINED ARE CUT SQUARE WITH A DROP SAW OR SIMILAR WITH A FINE-TOOTH BLADE TO AVOID CHIPPING.

4 Determine the orientation of the LED light strip in the extrusion so that the low voltage cable from the transformer connects at the correct end of the extrusion and LED light strip. BE CAREFUL TO CHECK THE ORIENTATION OF THE MALE AND FEMALE JOINTS OF THE EXTRUSION BEFORE ATTACHING THE LED LIGHT STRIP , OTHERWISE IT MAY BE THE WRONG WAY AROUND COMPARED TO THE ROOF PANELS.



5 Determine where you wish to position the LED driver and how you wish to route the low voltage cable connecting the driver to the LED light strip. You may wish to drill a hole through the LED extrusion in the correct position or run the cable out the end of the extrusion cavity.

6 ENSURE YOU READ AND FOLLOW THE INSTALLATION INSTRUCTIONS PROVIDED BY THE MANUFACTURER OF THE LED LIGHT STRIPS.

Clean the cavity of the LED extrusion with isopropyl alcohol or similar, and then attach the self-adhesive LED light strip to the extrusion. The grooves in the cavity aid with maintaining a straight line. Use a dab of silicon either side of the LED light strip at 500mm spacing for a more secure long term fixing being careful not to cover the light emitting section with silicon as this could be noticeable when the light is switched on.

7 Before lifting the LED light assembly(s) into position, it is worthwhile to power up the light to check that it is functioning as expected. If all OK, click the diffuser into the LED extrusion and seal the opening at the ends with silicon to prevent entry of bugs etc

8 Install panels (as per normal installation) up to the 1st panel requiring a LED Light system, ensuring they have at least one fixing (roofing screw at gutter end and rivet at receiver end) at each end to prevent movement. Do not install roof screws into the ridges either side of the LED light system.

9 Checking the orientation of the LED Light assembly to ensure it will fit the male or female joint in the panel, position the LED Light assembly over the support beams and into the receiver channel. Align the end of the LED extrusion with the end of the bottom skin of the panel and push it into the panel joint for a tight and neat fit. Use some masking tape in a few positions along the length of the LED extrusion to hold it in place.

10 Place the next panel onto the supports (receiver and beam), and then slide it over so that the LED extrusion is fully mated with both panels.
TIP: Hold the overlap section of the Corrolink panel up with some small flat strips to guide and allow the overlap to go over the EPDM seal without catching.

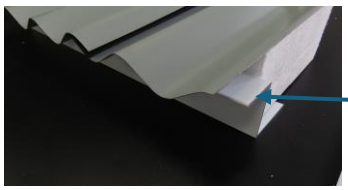

Lift overlap section up so it doesn't catch on the EPDM strip when pushing panels together.

11 Check that the male/female components are mated properly on both sides of the LED extrusion, with tight even gaps along the entire length of the panels. Secure the roof panel in place. Remove the masking tape that was used to hold the LED extrusion in place.

12 Continue installing panels as per typical installation practices until the next LED system is required, and follow steps 8 to11 to install.

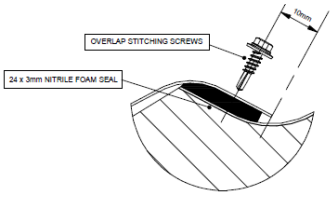
13 Once all panels and LED Systems have been installed, push enough EPS insulation blocks into each cavity above the LED extrusion, to completely fill it. Trim the last block to finish in line with the bottom skin of the roof panels.

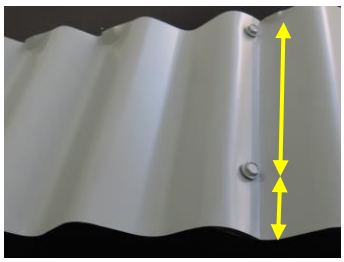
14 Once all cavities have been filled with EPS insulation blocks, cut the Z Flashing for the gutter end to the correct length and install it as normal by fixing to the roof panels using rivets from the underside and through the valleys at the top at 300mm centres. Do not rivet the overlap section as you will need this to lift to insert the foam infill in the next step



15 Push the Gutter end infill foam section into the cavity above the Z flashing at the gutter end of all LED systems. Ensure it is pushed against the EPS foam core of the roof panels

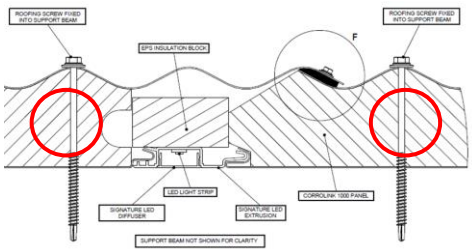
16 Stitch the overlap section of the roof panels at every LED system with the 10g TEKS screws at 300mm spacing as per diagram starting approx 25mm from the gutter end.





17 Insert the foam infill strips under the receiver at the non-gutter end over the entire width of the patio.

18 Install other flashings ie barge and gutter and fix off the top of the receiver to the top of the roof panels. Ensure all remaining roofing screws are installed into the beam. Ensure all rivets fixing underside of the the receiver to the roof panels are installed. Ensure all stitching screws are installed where panels overlap with no LED System in between.



Position of roofing screws either side of LED System

19 Clean the roof of any swarf and debris with a blower.