

Installation Instructions For

Major Projects with On Site Cutting

E-Series Step Edge Contrast

Ecoglo markers are to be installed only where there will be sufficient natural or artificial light to keep them charged whenever the building is occupied.

If unsure, contact Ecoglo

Major Projects with On Site Cutting

E-Series Step Edge Contrast

Materials Required

- Work benches up to 2.0m long
- Tape measure/ruler/pencil
- Guillotine - Hand Operated Plate Shears (Model: Opti PS150 or similar)
- Hole spacing jig (using end stops and/or alignment marks)
- Bench hand punch
- Battery drill
- Drill bit for countersink
- Angle grinder (for surface preparation)
- Abrasive flap disc (for surface preparation)
- Methylated spirits and cloth
- Würth KD Bond and Seal or Bostik Seal'n'Flex FC adhesive (expected usage 25 - 30 metres per 600 ml sausage) or similar quality polyurethane adhesive
- Caulking (adhesive) gun
- Nozzles for caulking gun
- Fixers - 6G x 25mm
- Anchors (plugs) - 5 x 25mm
- Brush and pan

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Cutting

1. Measuring the Contrast Strip

- Measure the required length of the strip.
- Mark the position where you will cut.

2. Cutting the Contrast Strip to Length

- Contrast strips contain silicon carbide grit that rapidly blunt high-speed saw blades, so a manual guillotine - also referred to as hand shears (example pictured below) - is needed to cut the strip.
- Lay the strip, upside down, into the guillotine.
- Use the guillotine to cut the strip - it is recommended that the strips are always cut while upside down to eliminate potential bruising of the strip.
- Cut the strip at the length measured.

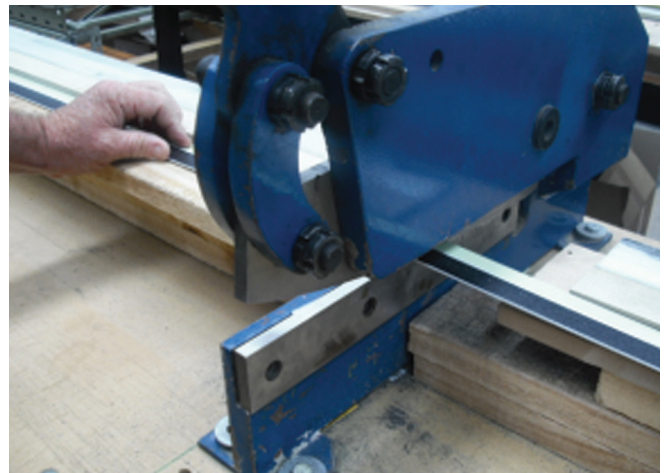
NOTE: The maximum recommended length for installation in outdoor situations is 1.5 metres, with a minimum 3mm gap between lengths. This allows for thermal expansion in extreme weather conditions and also aids in water drainage off the step tread.



Guillotine - Model: Opti PS150

Punch Fixer Holes (if using fixers)

- Refer to the hole drilling/punching specification table below to determine positioning and number of holes.
- Ensure outside holes are approximately 50 mm in from each end.
- Mark where holes are to be made - this should be through the anti-slip material.
- Using a bench hand punch (example below) create holes for fixers.
- If countersinking is required, use a hand drill and countersink drill bit to make fixer flush with strip.



Using guillotine (hand shears) to cut strip



Bench Hand Punch - Model Bramley 023 (HP-10), 3-10mm

Hole Drilling Specifications

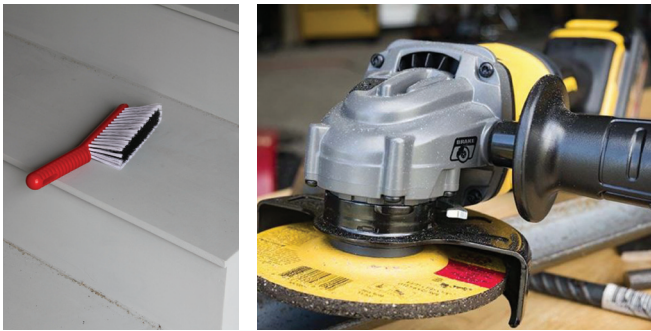
Strip Length	Less than 350mm	350mm - 650mm	650mm - 950mm	950mm - 1250mm	1250mm - 1500mm
Number of Holes	2	3	4	5	6

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Installation

1. Preparation of Surface

- Thoroughly clean the surface with industrial strength cleaner if necessary.
- Allow surface to dry.
- If painted, sealed or coated, remove using an angle grinder with abrasive flap disc (see image below).
- Brush/vacuum off the dust.
- Wipe surface with acetone.



Note: Installation onto Concrete Surfaces

- It is preferable to use adhesive only for concrete installations. The adhesive will allow some movement to compensate for thermal contraction and expansion and will provide durable adhesion to the concrete substrate.

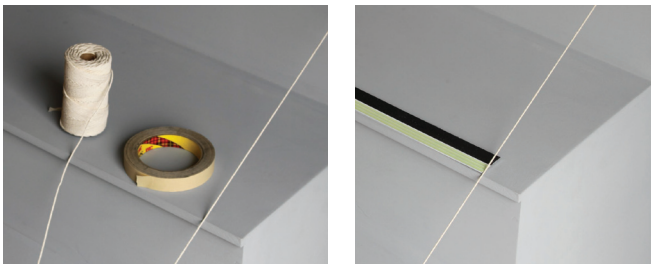
** Where adhesive only installation is preferred on surfaces that have a sealer applied (eg concrete, exposed aggregate and some tiles) a test patch should be laid and allowed to temperature cycle over a minimum of 14 days to ensure a good bond is achieved.*

If the adhesive does not hold then mechanical fixers should be used.

If mechanical fixing is not practical due to potential damage to the substrate please contact Ecoglo.

2. Alignment of the Strips

- Mark 50mm from the left edge of the top step.
- Mark 50mm from the left edge of the bottom step.
- Place a string line between the marks to ensure the strip on each step will be correctly aligned.



- The maximum recommended length for installation in outdoor situations is 1.5 metres.
- There must be a 3mm gap between lengths. This allows for thermal expansion in extreme weather conditions and also aids in water drainage off the step tread.
- Leave a 3mm gap either side of built-in steps

3. Preparation of the Strip

- Clean back of contrast strip with soft cloth and if necessary use methylated spirits (or similar solvent) to remove oil or grease
- Allow to dry for approximately 1 minute.

(For installations requiring adhesive & fixers go to step 8)

4. Applying the Adhesive

- Apply a 3mm zigzag bead of polyurethane adhesive (such as Wurth KD Bond and Seal or Bostik Seal n Flex FC) to the back of the strip, 3mm in from the edges.
- Take care to keep adhesive away from any drill holes.
- Continue along the length of the strip.



Adhesive Usage:

E2 Series - 30 metres per 600ml

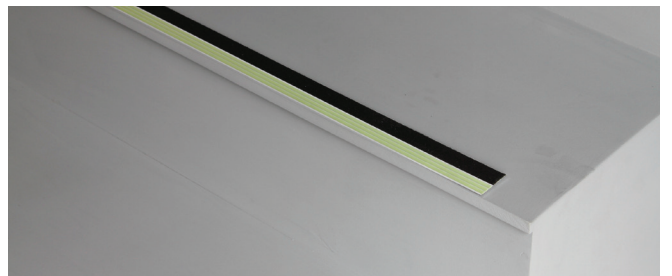
E4 Series - 25 metres per 600ml

E14 Series - 25 metres per 600ml

Ecoglo can supply Wurth KD Bond and Seal in 600ml Sausage form with Applicator Gun.

5. Placement of the Strip

- Line up the strip with your alignment marks and position approximately 2-3mm back from the front straight edge of the step.
- Place in position with the photoluminescent (light green) component of the strip to the leading edge of the step (see image below).



Steps with exposed sides:

Ensure the nosing is set back from exposed side by at least 20mm to ensure the outer edge of the nosing does not present a sharp hazard.

Tile Steps:

If the tiles are not perfectly aligned then the contrast strip must be cut into pieces the width of each tile and placed so that the grout line is exposed.

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6. Apply Pressure to the Strip

- Apply even pressure to spread the adhesive beneath the strip using a hand roller.
- If necessary stand on each strip to ensure good contact between the strip and the step.



7. Allow the Adhesive to Cure

- Immediately following installation close off the area for a period of 8 hours to avoid the Ecoglo strip being moved whilst the adhesive is in the early stages of “cure”.
- Wait until adhesive has fully cured (allow at least 24 hours) before trimming any excess from each strip with a sharp blade.

8. Installations requiring Adhesive and Fixers

a. Outdoor Timber installations - 2 stage process

Note: Indoor installations only require adhesive

For outdoor timber installations both adhesive and fixers should be used because installation onto outdoor timber surfaces varies due to the uneven nature of timber, the various types of timber (eg pine or kwila), the protective coating (eg paint or sealer) and seasonal temperature variances.

Stage 1:

- Apply adhesive as per steps 3-4 taking care to keep adhesive away from pre drilled holes.
- Place strip as per steps 5-6.
- Leave the adhesive to cure for 7 days before installing the fixers.

Stage 2:

- Place a screw fixer into each hole and drill in securely using a battery drill.
- Do not fully tighten the fixers to avoid compressing the adhesive.

For timber installations the strips should be pre-drilled through the anti-slip material. The table below shows the number of drill holes required to allow for the natural contraction and expansion of timber.



b. Concrete Installations

Note: Adhesive only is usually sufficient, however, if adhesive and fixers are preferred, follow the instructions below.

DO NOT use fixers without considering the effects of temperature variance and thermal expansion, especially outdoors. If in doubt contact Ecoglo.

- Position the strip approximately 2-3mm from the front straight edge of the step and using the pre-drilled holes mark where the fixers are to be placed.
- Using a 6mm masonry bit and a concrete drill, drill the hole that will house the plastic anchor.
- Wipe away any dust or debris.
- Place the anchor fully into the holes.
- Apply adhesive as per steps 3-4 taking care to keep adhesive away from the pre-drilled holes.
- Place strip as per steps 5-6.
- Place a screw fixer into each hole and drill in securely using a battery drill.
- Do not fully tighten the fixers to avoid compressing the adhesive.