ecoslab

PRE INSTALL Installation Guide

SLAB EDGE INSULATION

*eco*slab® Installation Guide & FAQ's

Considerations for design

ecoslab® PRE INSTALL is a thermal insulation system designed to be installed to the outside faces of concrete floor slabs for residential and commercial buildings. It is to be set immediately adjacent/flush to the concrete formwork **prior** to concrete pour.

Do not use ***eco***slab® as formwork.

ecoslab® should be set with the top edge flush to the finished floor level of the concrete slab, and the outside face in line with the bottom plate. ***eco***slab® is designed to offer continuous insulation across the full slab edge; the corners without thermal breaks; together with supplementary insulation under the slab utilising ClimaFoam XPS.

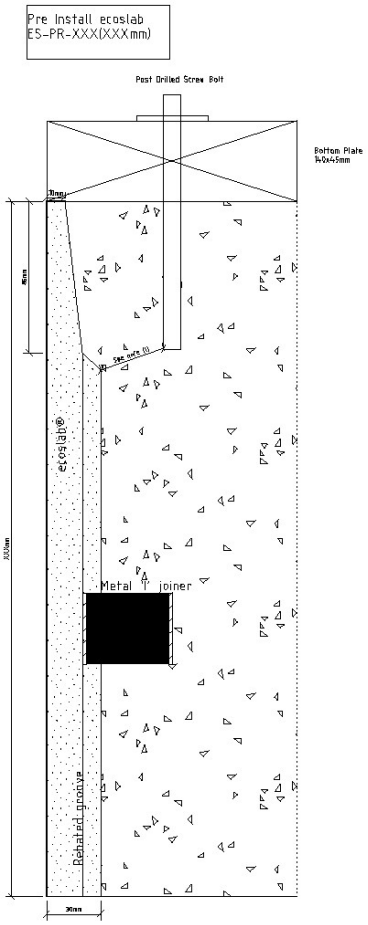
Consideration needs to be made when designing the slab to ensure adequate cover is maintained for the hold down fixings for the bottom plate of framing.

*eco*slab® - Components

System components include;

1. 2.2m lengths ***eco***slab® (at set heights),
2. Pre formed reinforced continuous insulation corners at same height as lengths,
3. Each length and corner have pre cut and sealed 'I' joiner rebated groove,
4. 'I' aluminium joiners,
5. Resin/cement sealing kit for onsite cuts and patch kit of resin acrylic polymer chip coat for touch up - if damaged during the construction cycle,
6. ClimaFoam XPS sheets to fit under slab footing.

ecoinsulation



Selecting the product

Slab Height range (mm)	*eco*slab® Heights (mm)	XPS thickness at base (mm)	*eco*slab® Lengths (mm)	Part # for ordering lengths	Part# for CORNERS to suit
200 or less	197	40	2200	ES-PR-197	ES-PRCNR-197
230-250	235	40	2200	ES-PR-235	ES-PRCNR-235
290-310	300	30	2200	ES-PR-300	ES-PRCNR-300
380-420	390	30	2200	ES-PR-390	ES-PRCNR-390

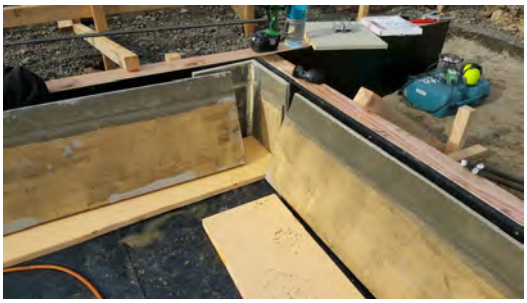
Special heights can be made on request. If over-height, base can be trimmed.

When ordering;
Advise # of outside corners, together with overall lineal meters of slab edge to be insulated. (Note inside corners are formed by cutting and butting together).

Tools for installation

- Handsaw, angle grinder (or similar) for cutting lengths and creating joiner rebates on fresh joins.
- MS Sealer or tape for sealing inside face of joints if not flush.
- Shims/wedges if grade uneven to ensure top edge flush to finished floor level
- Plastic Banding tape, and staple gun for fixing banding tape.

Installation steps



After setting formwork and DPC, and **before placement** of reinforcing;

1. Place ***eco***slab® Corners,
2. Set and join 2.2m lengths ensuring joins are flush to top, matching finished floor level of slab,
3. When cutting for new joins,
   - always cut left hand end (when looking at the inside face of each ***eco***slab® component—all right hand ends have an obvious rebated groove for flush face placement),
   - cut a fresh 6mm groove 6mm to match for 'I' joiner placement ,
   - apply sealer, allow to dry for 10-15 minutes.

4. For internal corners, cut lengths to overlap and butt, flush to formwork,
   - Staple banding tape to hold joins tight if required,
   - Apply MS Sealant if not tightly abutted.
5. Fix 'I' Joiners at centre of each but join.

Installation (continued)

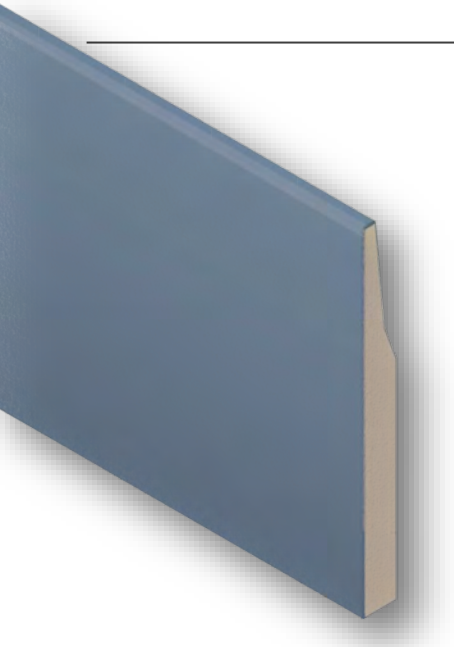
6. When placing ClimaFoam XPS under slab, cut lengths to required widths and place tightly abutted to base of ***eco***slab® ensuring a continuous thermal insulation around entire edge of slab,
   - Note, ClimaFoam XPS compressive strength 250kPa
   - Continuing insulation under the external footing and further under the slab improves the overall slab performance.

7. Note, reinforcing bar chairs can be set against back of ***eco***slab® if required. We recommend Max Frank fibre cement spacers.
8. Set reinforcing cages in place
9. Where gaps are present between the top of the ***eco***slab® and the formwork, and to avoid slurry overspill,
   - Using plastic banding tape
   - Staple to inside face of ***eco***slab® (minimum 3 staples) can be stapled through reinforcing mesh on back of ***eco***slab® lengths,
   - Pull tape tight over top of ***eco***slab® and across to edge of formwork
   - Staple to formwork, closing any gaps present.
10. Complete entire perimeter of slab,
    - cut to form at doorway set-downs
    - Set top edge for blockwork/brickwork
    - Check no gaps

11. Avoid standing on top edge of ***eco***slab® once placed;
    - Prior to pour,
    - During concrete pour,
    - And during the construction cycle.
12. Ensure all excavation, drainage, civil works adjacent to slab after formwork removed does not penetrate, puncture or remove ***eco***slab®.

13. If slurry overspill or minor damage to acrylic polymer chip finish occurs,
    - apply ***eco***slab® touch up kit with a brush (Part# ES-TIDY).
14. ***eco***slab® can be painted any colour using suitable external acrylic paint systems.

Frequently Asked Questions



What is the R-Value of ecoslab® protected continuous edge insulation?

A: All ***eco***slab® Pre-Install slab edge insulation has ClimaFoam XPS as the base insulation. ClimaFoam XPS has a thermal conductivity performance of 0.028W/mK. When applied to the full edge of the slab (no gaps or bridging through exposed concrete) the ***eco***slab® systems deliver an average of R1.0 or better to the edge. Higher R-values are available if required.

How long does it take to install ecoslab®?

A: For a typical slab of 100-150m2, allow 2 team members at least half a day. Note, the more corner details the longer it will take to set up!

Can ecoslab® be installed to any concrete floor/slab type?

A: Always verify details with your designer/architect - ***eco***slab® has been designed to work in conjunction with any slab on grade where traditional formwork or shutters are used. No special concrete mix is required.

What happens when ecoslab® is exposed to water?

A: ***eco***slab®***'s*** core insulation is ClimaFoam XPS. The manufacturer of ClimaFoam XPS state: *"ClimaFoam Extruded Polystyrene (XPS) is a high performance, water resistant and lightweight board of thermal insulation recommended for use under concrete slabs, green roofs, edge beams, cavity walls, external walls and cool rooms*". In addition to this, each length as well as the preformed corners of ***eco***slab® have two coats of a resin/cement bond to further reduce the chance of water penetration. The acrylic polymer chip outer layer adds the to external protection.

Do you always need to use the preformed corners?

A: The ***eco***slab® continuous insulation preformed corners are designed for OUTSIDE corners. The continuous insulation design, together with the reinforced corner ensures insulation is suitably applied to one of the weakest points of thermal bridging in a slab.

Note: INSIDE corners are created by cutting to length and tightly abutting joins. Tape/seal if necessary.

Maintenance requirements for ***eco***slab®

It is essential during the construction cycle that other trades working adjacent to the slab edge (such as excavation for plumbing, electrical, garden or civil works) are aware that the slab edge (whilst it appears to be concrete) is a rendered insulation board. ***eco***slab® has been designed to cope with exposure, but can be damaged by sharp objects. Should this occur, the ***eco***slab® tidy up kit can be applied ensuring a seal and aesthetic render is returned.

Additionally, the building owner should be advised that ***eco***slab® is present, and that care should be taken when excavating adjacent to slab, or when garden works are undertaken adjacent to slab. Touch up kits are available.

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