



# InsulAPE

## Considerations

InsulAPE Cast-in is a slab edge insulation system for installation to the exterior of concrete slabs for residential and commercial buildings. It is cast into the concrete prior to pouring by setting it up inside the formwork.

InsulAPE is not designed to be used as formwork.

The finished level of the concrete and the InsulAPE should be flush, with the InsulAPE top, continuing to the bottom edge of the slab with the outside face in line with the bottom plate (or other detail as specified on plans). InsulAPE offers continuous insulation across the slab edge, reducing thermal bridging.

It is the responsibility of designers and structural to ensure adequate cover is maintained for the hold down fixings for the bottom plate of framing.

Standard Sizes:

30mm thick, 300mm high, and 600mm high

Understanding Part numbers:

APE-30-300-TG-CI:

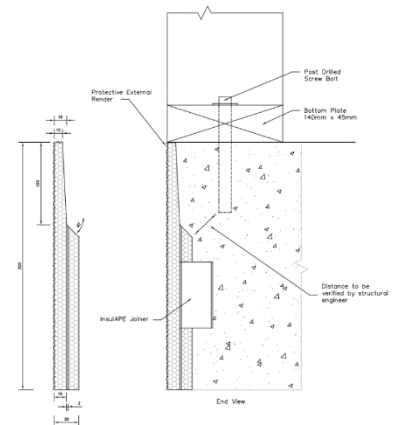
'30' = thickness (mm), '300' = height (mm), 'TG' = Tongue top, 'CI' = Cast-in/Pre-fit

## Components:

1. 2.5m lengths InsulAPE (at set heights),
2. Pre formed structural continuous insulation corners (at set heights)
3. 'H' aluminium joiners (fit into pre cut slots in each length & corner)
4. Sealing kit for onsite cuts
5. Final coat/touch-up kit - if damaged during the construction cycle

## Required Tools

- Skill saw, handsaw, angle grinder (or similar) for cutting lengths and creating joiner rebates on fresh joins.
- PT300, MS Sealant with mesh 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 InsulAPE Corners,
2. Set and join 2.5m lengths ensuring joins are flush to top, matching finished floor level of slab,
3. When cutting for new joins,
  - a. always cut left hand end (when looking at the inside face of each component)—all right hand ends have an obvious rebated groove for flush face placement,
  - b. cut a fresh 6mm groove to match for H joiner placement,
  - c. apply sealer, allow to dry for 10-15 minutes.
4. For internal corners, cut lengths to overlap and butt, flush to formwork,
  - a. staple banding tape to hold joins tight if required,
  - b. apply MS Sealant if not tightly abutted.
5. Fix 'I' Joiners at centre of each butt join.
6. Note, reinforcing bar chairs can be set against back of InsulAPE if required.
7. Set reinforcing cages in place
8. Use plastic banding tape to close gaps between the top of the InsulAPE and the formwork, and to avoid slurry overspill,
  - a. staple to inside face of InsulAPE (at least 3 staples),
  - b. can be stapled through reinforcing mesh on back of InsulAPE lengths,
  - c. pull tape tight over top of InsulAPE and across to edge of formwork,
  - d. staple to formwork, closing any gaps present.
9. Complete entire perimeter of slab,
  - a. cut to form at doorway set-downs
  - b. set top edge for blockwork/brickwork
  - c. check no gaps
10. Avoid standing on top edge of InsulAPE at any time
11. Ensure all excavation, drainage, civil works adjacent to slab after formwork removed does not penetrate, puncture or remove InsulAPE.
12. If slurry overspill or minor damage to acrylic polymer chip finish occurs,
  - a. apply InsulAPE Final coat/touch up kit with a brush,
13. InsulAPE can be painted any colour using suitable external acrylic paint systems.
14. InsulAPE requires minimal maintenance, advise property owner to avoid hitting slab edge with sharp metal objects, such as spades.

## Maintenance requirements for InsulAPE

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. InsulAPE has been designed to cope with exposure, but can be damaged by sharp objects. Should this occur, the InsulAPE tidy up kit can be applied ensuring a seal and aesthetic render is returned.

Additionally, the building owner should be advised that InsulAPE is present, and that care should be taken when excavating adjacent to slab, or when garden works are undertaken adjacent to slab. Final coat/touch up kits are available.



## Pre-Fix FAQ's

### **What is the R-Value of InsulAPE slab edge insulation?**

*A: InsulAPE Cast-in slab edge insulation delivers an average of R1.0 or better to the edge. Higher R-values are available if required.*

### **How long does it take to install InsulAPE?**

*A: For a typical slab of 100-150m<sup>2</sup>, allow 2 team members at least half a day, the more corner details the longer it will take to set up!*

### **Can InsulAPE be installed to any concrete floor/slab type?**

*A: Always verify details with your designer/architect - InsulAPE 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 InsulAPE is exposed to water?**

*A: InsulAPE's core insulation is XPS. XPS is a closed cell polystyrene foam insulation. Where cuts are made, InsulAPE sealant is to be applied to maintain the XPS' water repellent properties.*

### **Do you always need to use the preformed corners?**

*A: The InsulAPE 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 joints. Tape/seal if necessary.*

## Standard Pre-Fix Drawing List

All drawings are indicative only. Measurements and angles shown are subject to manufacturing tolerances.

Part#	Pre/Post	Top Detail	Insulation	R-Value	Thickness (mm)	Height (mm)
APE-30-300-CI-TP	PRE	Taper	EXPOL-X	1.1	30	300
APE-30-600-CI-TP	PRE	Taper	EXPOL-X	1.1	30	600
APE-30-300-CI-SQ	PRE	Square	EXPOL-X	1.1	30	300
APE-30-600-CI-SQ	PRE	Square	EXPOL-X	1.1	30	600