

Floor installation instructions

## ASC14/ASL14 – 14mm Fastflo™ IN AN ACOUSTIC SCREED FLOOR

## ASCE14/ASLE14 – 14mm Fastflo™ IN AN ACOUSTIC SCREED FLOOR WITH EDGE EXPANSION STRIP

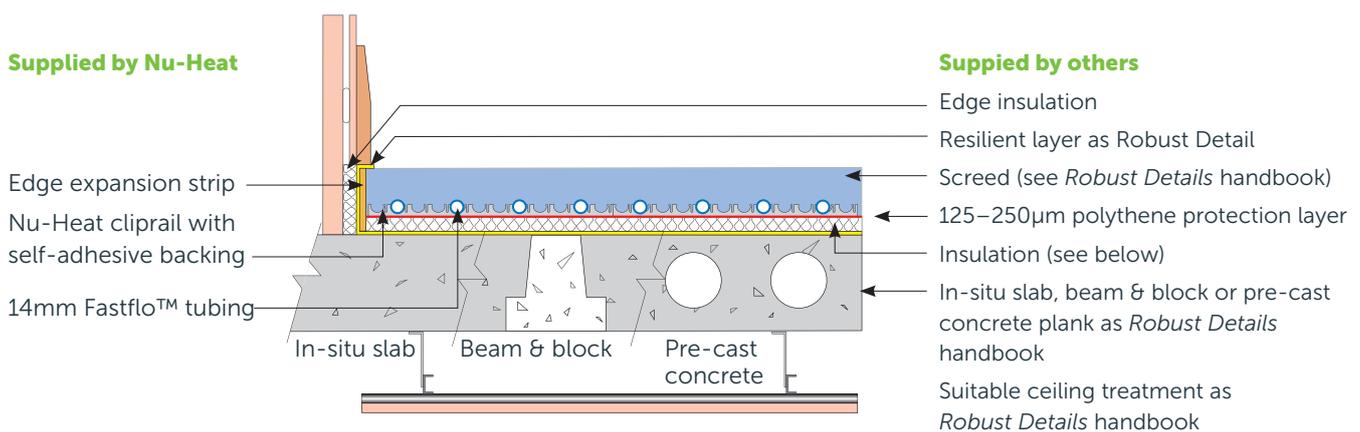
ASC14/ASL14 – MAY BE USED WITH ROBUST DETAILS E-FT-01, 02, 03 & E-FS-02

ASCE14/ASLE14 – MAY BE USED WITH ROBUST DETAILS E-FC-04, E-FC-6, E-FC-12, E-FC-13, E-FC-14

Pre-cast plank, beam & block or in-situ slab with sand and cement or anhydrite liquid screed finish incorporating a resilient layer

**Note:** i) It is important to prevent the screed bridging the resilient layer thereby compromising its acoustic properties.

ii) With robust detail E-FC-13, sand and cement screed may be used only.



\* Nu-Heat edge expansion strip only supplied with ASCE14 and ASLE14, where the resilient edge layer is not sufficient to accommodate thermal expansion of the screed.

### TECHNICAL INFORMATION

#### Screed

Screed of 80kg/m<sup>2</sup> mass per unit area must be applied. Adding 1mm to the screed depth offsets the combined volume of pipe and cliprail. With liquid screeds the tube must be covered by at least 30mm. This depth should be measured at the centre of span of the pre-cast plank, hence the highest point of the floor.

#### Insulation

BSEN 1264:4 'floor heating and components' requires at least 25mm of polystyrene ( $R = 0.75\text{m}^2\text{K/W}$ ) installed below the pipes in rooms above heated areas. Ground floors should comply with the requirements of Part L of the building regulations.

#### Expansion joints

Floor areas greater than 40m<sup>2</sup> or with sides longer than 8 metres should incorporate expansion joints and they should always be fitted in doorways. Where tube passes across expansion joints it must be covered with sheathing for at least 150mm on either side of the joint.

**TECHNICAL INFORMATION CONT.****Resilient layer**

E-FC-4: IsoRubber by Thermal Economics.

E-FC-5: YELOfon HD10 + by Collecta.

E-FC-6: Regupol E48 + from CMS Acoustics.

E-FC-11: TRANQUILT by Icopal-MONARFLOOR.

E-FC-12: IsoRubber Base HP3 by Thermal Economics.

E-FC-13: IntaLay 65 by InstaCoustic Ltd.

E-FC-14: IsoRubber by Thermal Economics.

E-FC-5: E-strip perimeter edging by Collecta.

E-FC-6: Resilient layer continues up wall.

E-FC-11: Resilient layer continues up wall.

E-FC-12: IsoEdge flanking strip by Thermal Economics.

E-FC-13: IntaLay 65 edge strip by InstaCoustic Ltd.

E-FC-14: IsoEdge flanking strip by Thermal Economics.

**Edge isolation strip**

E-FC-4: IsoEdge flanking strip by Thermal Economics.

**USEFUL CONTACTS**

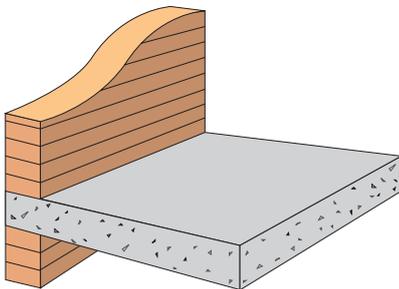
Thermal Economics: Telephone: 01582 544255, Fax: 01582 429305, Web: [www.thermal-economics.co.uk](http://www.thermal-economics.co.uk)

Collecta: Telephone: 08456 717174, Fax: 08456 717172, Web: [www.collecta.co.uk](http://www.collecta.co.uk)

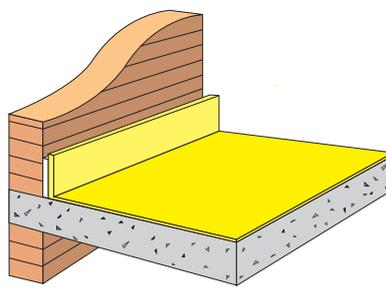
CMS Acoustics: Telephone: 01925 577711, Fax: 01925 577733, Web: [www.cmsacoustics.co.uk](http://www.cmsacoustics.co.uk)

Icopal-MONARFLOOR: Telephone: 01618 666540, Fax: 01618 666527, Web: [www.icopal.co.uk](http://www.icopal.co.uk)

Instacoustics: Telephone: 01189 739560, Fax: 01189 739547, Web: [www.instacoustic.co.uk](http://www.instacoustic.co.uk)

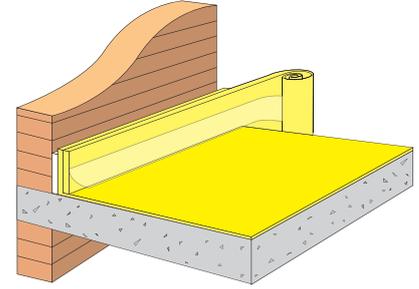
**SEQUENCE OF LAYING THE FLOOR**

- 1** Ensure the floor surface is clean and free from cement.



- 2** Lay edge isolation strip and resilient layers as directed by the manufacturer and *Robust Details* handbook.

**Note:** Never staple or nail the edge expansion strip to the wall.

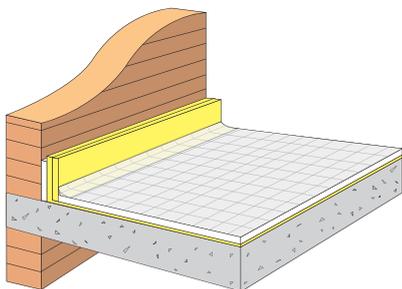


- 3** Lay the Nu-Heat edge expansion strip around the perimeter of the room.

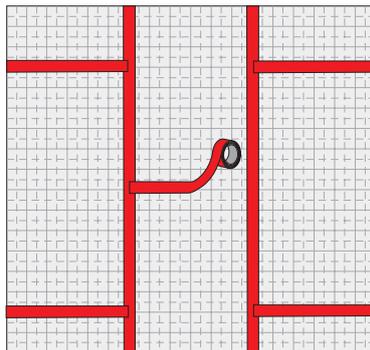
(ASCE14 and ASLE14 only – E-FC-5 and E-FC-11)



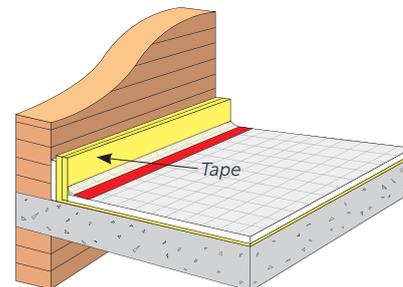
## SEQUENCE OF LAYING THE FLOOR – CONTINUED



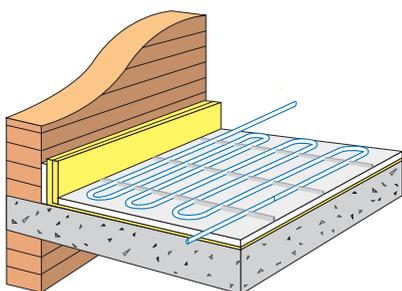
- 4 Lay the insulation across the whole floor.



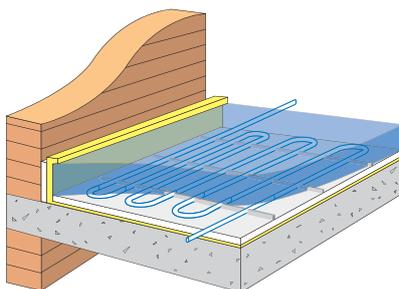
Cover with a 125–250µm polythene protection layer, overlapping sheets by at least 80mm. This is a requirement of the British Standards and of some insulation manufacturers.



- 5 The polythene protection layer should be continued up the wall to 'tank' the floor. If an edge expansion strip is supplied (ASCE14 & ASLE14) then the polythene flap is used for this purpose, being taped to the polythene protection layer.



- 6 Fit the Cliprail with its self-adhesive strip and floor heating tube as in the instructions on the following page.

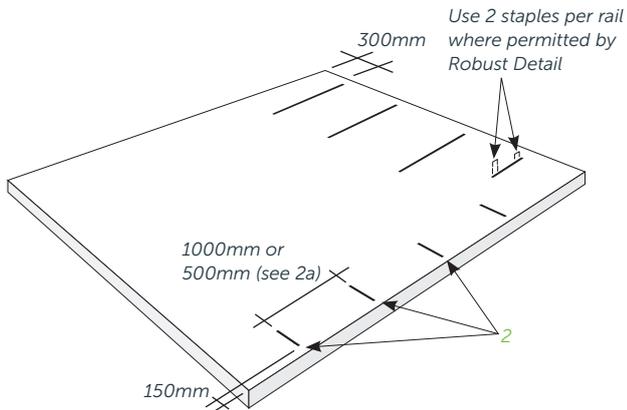


- 7 Screed the floor whilst the system is filled and under pressure.

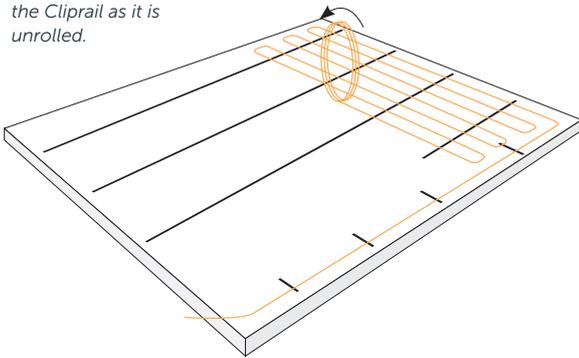
**Note:** Resilient layer(s) must be continuous across the entire floor surface.



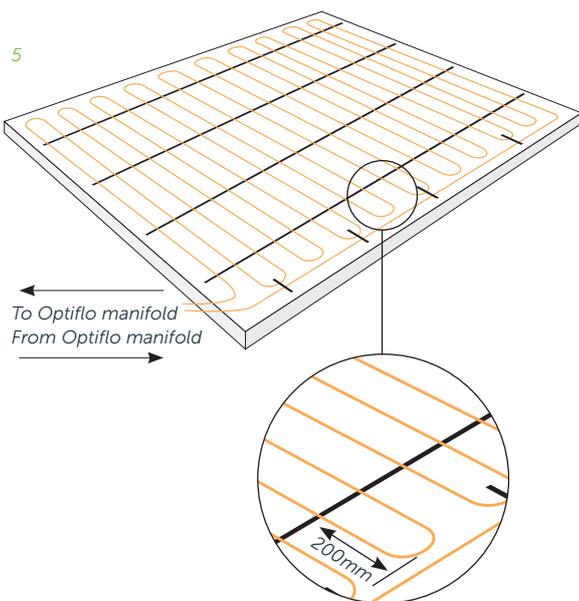
## SEQUENCE OF LAYING THE HEATING TUBE IN THE FLOOR



3 Push the floor heating tube into the Cliprail as it is unrolled.



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- 1 Look at the CAD system design to see where the floor heating tube enters the room. Place the first piece of Cliprail accordingly. Use the self-adhesive strip to stick it down.
- 2 Look at the A3 tube layout drawing to see how many coils of tube will be used in the room. Leaving a gap of 150mm from the wall, place enough Cliprail leading away from the manifold to hold a flow and return tube from each coil. This should be spaced at 1000mm intervals for sand & cement screed and 500mm intervals for liquid screed.

Where required, cliprail can be laid in staggered pairs to enable pipework at the manifold to be closely spaced (at 25mm centres). Use ribbed conduit to cover the tube in these areas to prevent localised over heating.

- 3 Starting at the manifold position, unroll the floor heating tube pushing it into the Cliprail as you go. Follow the pattern and use the tube spacing shown on the CAD system design.
- 4 If the tube requires further support on 180° turns, snap off 100mm long sections of Cliprail to secure.
- 5 Now simply continue working across the floor and back to the manifold position making sure the floor is fully and evenly covered with tube.

**Note:** There may be more than one coil in a room zone.

- 6 When all the tube is laid, connect to the Optiflo manifold as described in the *Installation Manual*. Use a pipe bend support leading into the manifold. Label all tube as it is fitted to the manifold with the room name, zone number and flow rate as detailed on the system plans.
- 7 Pressure test the system as described in the *Installation Manual*.

