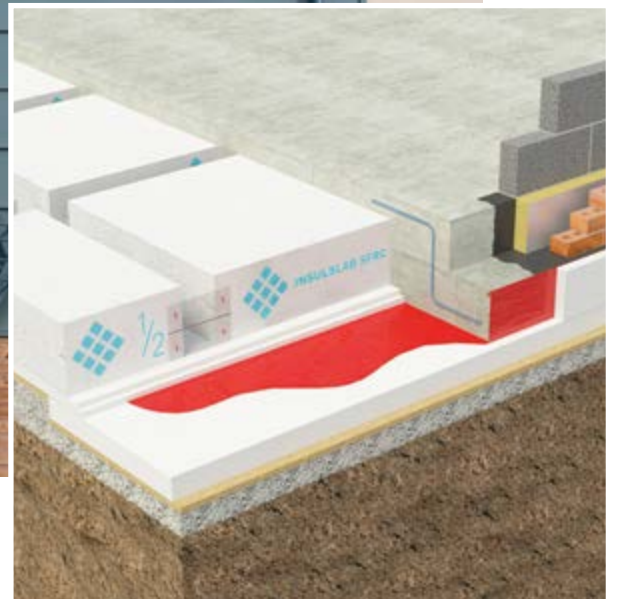


# Unique Foundation System

BBA approved foundation system developed specifically for challenging sites



premier guarantee



# What is Insulslab?

A complete BBA approved system to replace traditional piled and semi-raft house foundations.

Foundation to finished floor level and fully insulated in one operation, the Insulslab **Steel Fibre Reinforced Concrete (SFRC)** system allows for quick, efficient foundation development even on challenging sites. A suitable replacement for traditional piled and semi-raft foundations, Insulslab provides a wide range of physical and technical benefits, offering both speed of construction and excellent thermal performance.

## Certification

Insulslab, using AcelorMittal Steel Fibres, is BBA certified (visit [www.insulslab.com](http://www.insulslab.com) for full details) and is accepted by the NHBC/LABC and Premier Guarantees.

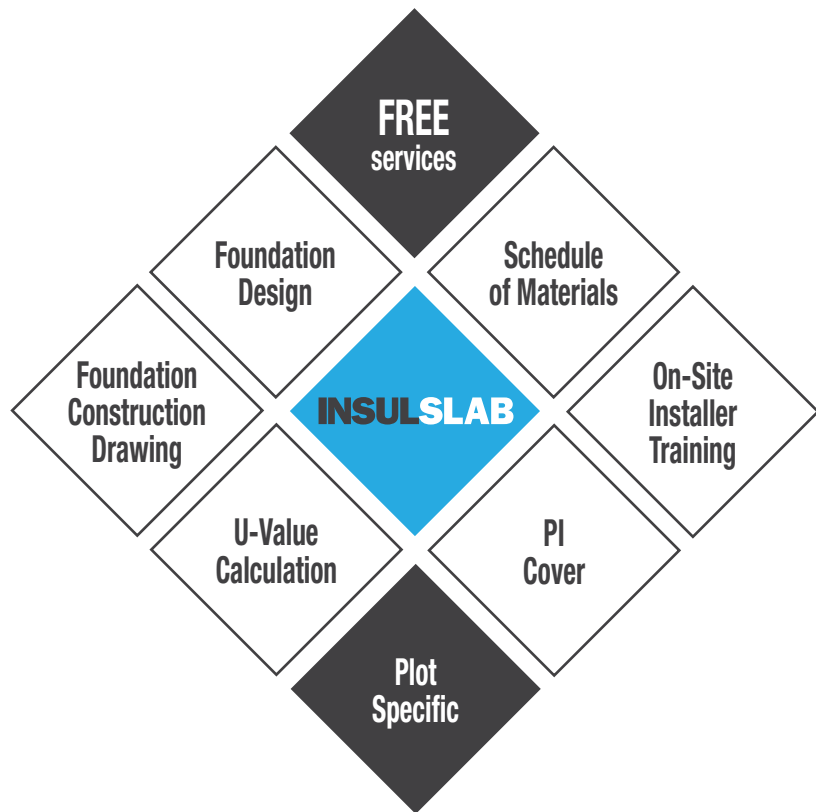


AcelorMittal is the only steel fibre manufacturer with a production facility in the UK and the world's largest steel producer, with a total of 116 million tonnes of crude steel produced annually.



AcelorMittal

Insulslab can offer the developer 'plot specific' services **FREE of charge**



## Application

The Insulslab house foundation system is suitable for 5 or more semi-detached, detached, terraced or apartment dwellings.



DETACHED



SEMI-DETACHED



TERRACED

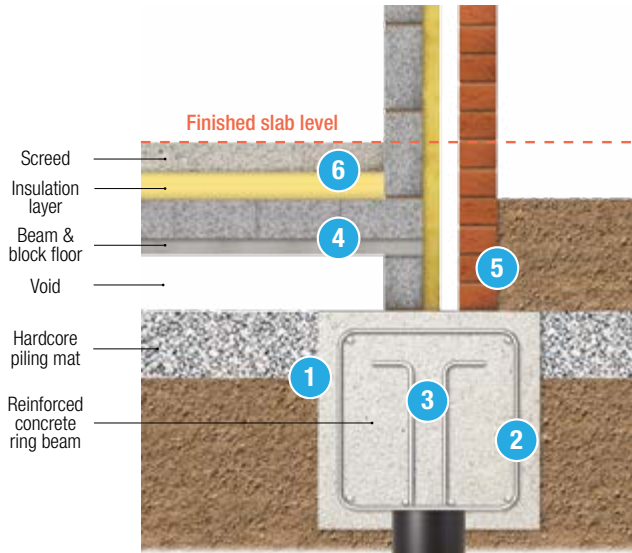


APARTMENTS

# The benefits of Insulslab in Piled Foundation

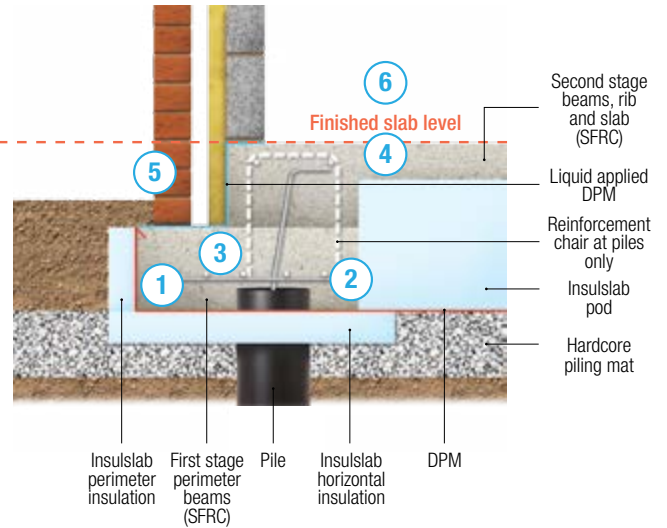
## Traditional piled edge beam

Typical piled foundation 900mm depth on average, plus 150mm insulation and screed.



## INSULSLAB piled edge beam

Typical piled foundation 550mm depth overall.



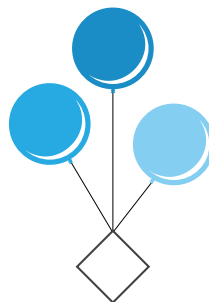
- 1 Excavate beam width and working space. Deep excavations incurring larger cart away cost.
- 2 Reinforcement beam cages fixed and installed by steel fixers.
- 3 Large quantities of reinforced concrete on ring beams. Ring beam shuttered with permanent formwork and backfilled prior to concrete pour.
- 4 Installation of beam & block flooring on single block course.
- 5 Bricklayer required for deep splash course and internal blockwork.
- 6 Labour and cost incurred to lay insulation and screed to finished floor level.

- 1 Minimal excavation required for edge beam and pods. Lay insulation to beam soffit and place shutter.
- 2 Lay strips of mesh to beams and nominal reinforcement chair only over piles.
- 3 Lightweight Insulslab pods can be quickly placed by the groundworker. First stage perimeter beams (SFRC) use less than half the amount of traditional ring beams.
- 4 Erect second stage shutter and pour remaining beams, ribs and slab (SFRC) as one.
- 5 Only 3 brick courses of splash course required.
- 6 Insulslab provides built in insulation with a typical U-value of 0.11 - 0.13 W/m<sup>2</sup>K so additional insulation is not required.

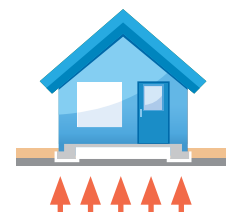
## Benefits of Insulslab



Single point of contact from foundation to finished floor level



Lightweight foundations

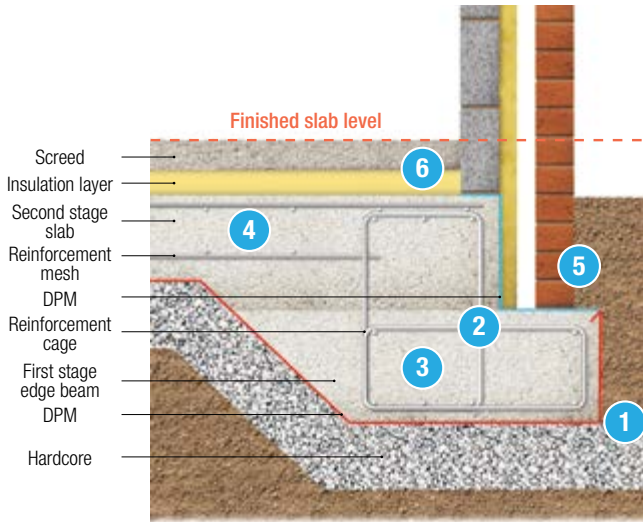


Built in insulation within the system provides a typical U-value of 0.11 - 0.13 W/m<sup>2</sup>K dependant upon the p/a ratio

# The benefits of Insulslab in Semi-raft Foundation

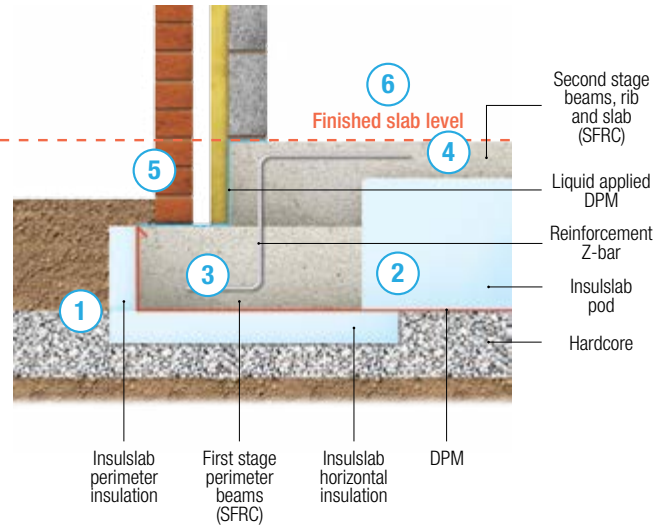
## Traditional semi-raft

Typical semi-raft foundation 600mm depth on average depth, plus 150mm insulation/screed layer.



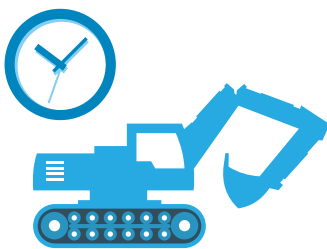
## INSULSLAB semi-raft

Typical semi-raft foundation 450mm depth on average.



- 1 Excavate to formation of edge beam and compact hardcore layer. Deep excavations incurring larger cart away cost.
- 2 Reinforcement beam cages and mesh installed by steel fixer.
- 3 Large quantities of reinforced concrete poured for perimeter and internal beams.
- 4 Reinforced mesh layers installed, increasing cost and labour.
- 5 Bricklayer required for increased depth of splash coursing.
- 6 Labour and cost incurred to lay insulation and screed over second stage slab.

- 1 Minimal excavation required for edge beam and pods. Lay insulation to beam soffit and place shutter.
- 2 Lightweight Insulslab pods can be quickly placed by the groundworker. First stage perimeter beams (SFRC) use around half the amount of traditional perimeter and internal beams.
- 3 Expert knowledge not required to install reinforced Z-bar.
- 4 Erect second stage shutter and pour remaining beams, ribs and slab (SFRC) as one.
- 5 Only 3 brick courses of splash course required.
- 6 Insulslab provides built in insulation with a typical U-value of 0.11 - 0.13 W/m<sup>2</sup>K so additional insulation is not required.



Quicker construction



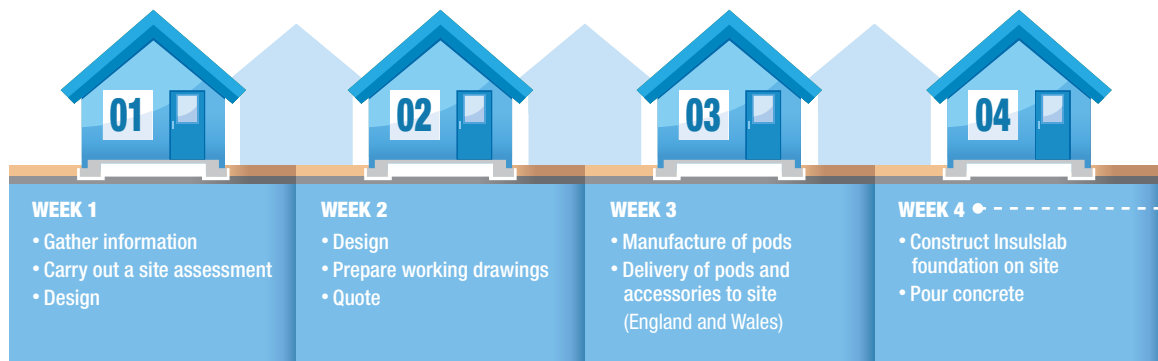
Can offer cost savings including lower "cart away" costs



BBA certified system using AcelorMittal Steel Fibres

# Insulslab 4 week challenge

We believe that from Enquiry to Finished Foundation can take as little as four weeks.



## Week 4 on site construction

Typical build sequence



### Preparation of the sub-base

- Strip
- Compact/roll formation
- Place 125mm layer of clean hardcore
- Install drainage and services
- Re-compact



### Installation of the Insulslab Elements

- Place horizontal edge and internal beam insulation
- Erect first stage shutter
- Fill islands up to the top of the insulation
- Compact and sand blind hardcore surface



### Placing pods and first stage pour

- Lay DPM over footprint of foundation
- Place pods and fix rib accessories
- Brace beams and pods as necessary
- Pour toe beam around perimeter
- Place Z-bars



### Second stage fix

- Fix second stage shutter



### Steel Fibre Reinforced Concrete

- Pour slab, internal beams and ribs
- Tamp, ball float and power float concrete surface



### Curing and finishing

- Strip second stage shutter
- Paint on liquid DPM to toe
- Foundation complete
- Handover to client



## Site support

Insulslab provide free of charge on-site training for all installers, which is backed up with certification for each worker. The training is carried out on-site in the form of a Toolbox Talk, which takes approximately one hour. We cover the whole installation process with hints and tips to speed construction.

We follow that up with initial site visits at each construction stage to ensure compliance with the installation process. During some of the initial pours of the Steel Fibre Reinforced Concrete (SFRC) we will carry out random washout tests to ensure compliance of the chosen concrete provider of the SFRC.



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## Enquiry

To prepare a full quotation we will require

- Soil report
- Site engineering layout
- Tree survey
- Full set of house drawings in an Autocad format
- Site layout

For further information please contact our technical/sales team

**INSULSLAB**

tel: **0844 5766 726**

email: **sales@insulslab.com**

Watch our  
installation video to  
see our system in action



**[www.insulslab.com](http://www.insulslab.com)**