

A foundation system that offers both cost savings and excellent thermal performance.



www.insulslab.com



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Insulslab is an innovative, high quality, patented foundation system that is suitable for use on a wide range of soil types. Insulslab is available exclusively through SIG Insulation stockists.

When compared to traditional methods of foundation production such as beam and block and raft foundations, Insulslab is quicker to install, more environmentally friendly, offers excellent thermal performance and significant cost savings.

The shallow foundation system requires minimal excavation, is simple to design and construct and facilitates easy compliance with Part L (Section 6 Scotland) of the Building Regulations, without the need for an additional layer of insulation and screed. By using a proprietary Robust Details construction, it also meets Part E (Section 5 Scotland) requirements for sound insulation. Significant contribution to Code for Sustainable Homes and BREEAM credit scores.

A COMPLETE SYSTEM

Insulslab is a complete cast in situ system, based on a foundation which comprises a series of interlocking expanded polystyrene pods, forming a substantially rigid 'waffle' shaped slab. Steel fibre reinforced concrete (SFRC) is poured over the top to form the finished foundation. The steel fibres are manufactured in the UK by ArcelorMittal. The steel fibre reinforced concrete, when correctly installed and in accordance with the grade and slump details below, provides many benefits;

- Excellent impact strength.
- Maximum edge protection.
- Improved fatigue endurance.
- A higher level of shrinkage and crack control.
- Greater bearing capacity.
- Steel fibres do not damage power floats or concrete pumps.

SIMPLE TO DESIGN AND CONSTRUCT

General arrangement drawings, i.e. layout for the foundations, are designed by Insulslab structural engineers. Our consultants provide a plot specific engineered solution in order to minimise risk, whilst maximising any potential savings.



A FULL SERVICE SOLUTION

A complete specification and installation support service is available from Insulslab's specialist technical team, including engineering, U-value calculations and on-site technical support. Information provided includes: General arrangement drawings, structural calculations, U-value calculations, Bill of Quantities and Schedule of Materials. Warranties can also be provided if required.

CERTIFICATION

Insulslab, using ArcelorMittal Steel Fibres, is BBA certified(visit **www.insulslab.com** for full details) and is accepted by the NHBC/LABC and Premier Guarantees.



ARCELORMITTAL

ArcelorMittal 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.

For full technical details on the Insulslab system refer to the Best Practice Guide or contact one of the Insulslab team. For a copy of the Best Practice Guide or for a list of Insulslab contacts refer to our website at www.insulslab.com

Tomorrow's performance... TODAY

Insulslab offers substantial benefits for the developer, architect, structural engineer and ground worker.

COST SAVINGS

This simple foundation solution provides:

- Typical savings of around 25% over a cap on piles foundation or raft replacement.
- Savings vary depending on depth of trench for beam and block or suspended slabs.
- No trenches required.
- Minimal excavation, less disruption, reduced waste disposal.
- Increased speed of construction/quicker completion times.
- Reduction in labour costs.

THERMAL PERFORMANCE & SUSTAINABILITY

Insulslab complies with Part L (Section 6 Scotland) Building Regulations when correctly specified and constructed, providing:

- Typical U-values of around $0.10-0.13W/m^2K\!,$ depending on P/A ratio.
- Approved construction detail.
- Significant contribution to Code for Sustainable Homes and BREEAM credit scores.
- Greater flexibility within the overall design of the thermal envelope.
- 'Future-proof' low U-values facilities further code level upgrades.
- Reduced cart away and site traffic.
- · Less intrusive system; perfect for brownfield sites.
- Less volume of concrete and steel required.
- Provides consistant performance during the life of the building.

HEALTH AND SAFETY

The system contributes positively to Health & Safety requirements:

- Insulslab is safer to install as no trenches are required, eliminating associated risks.
- Insulslab pods are light weight so manual handling is minimised throughout construction.
- Fewer components helps minimise site traffic.
- · Less risk of injury due to minimal reinforcing requirements.
- No heavy blocks to lift.







ENQUIRIES:

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