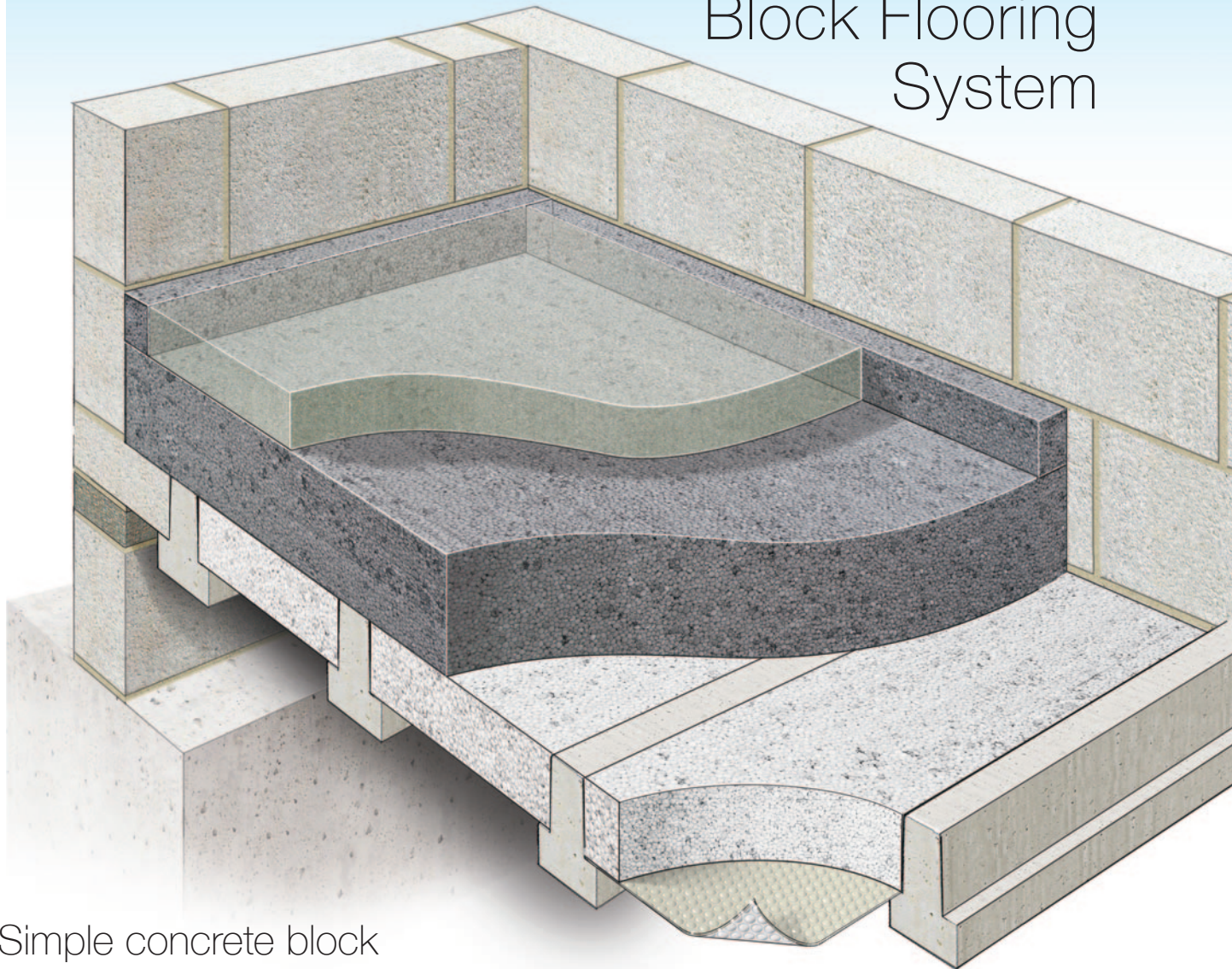


Insulated Beam & Block Flooring System



Simple concrete block replacement system that can achieve U-values of 0.07W/m²k

- Fast installation with large, lightweight insulation infill blocks - each replacing 5+ concrete blocks
- Provides cost savings over other 'insulated beam & block' systems
- Compatible with beams from major suppliers
- Thinner construction depth than traditional beam & block systems
- No need to re-design beam layouts



A simple,
affordable solution
to Part L 2021

The Alreflex ZebraFloor system is like a standard Beam & Block system, but simply replaces the standard concrete blocks with high performance EPS and bubble foil insulation to provide a unique, low cost solution to Part L 2021 ground floor requirements.

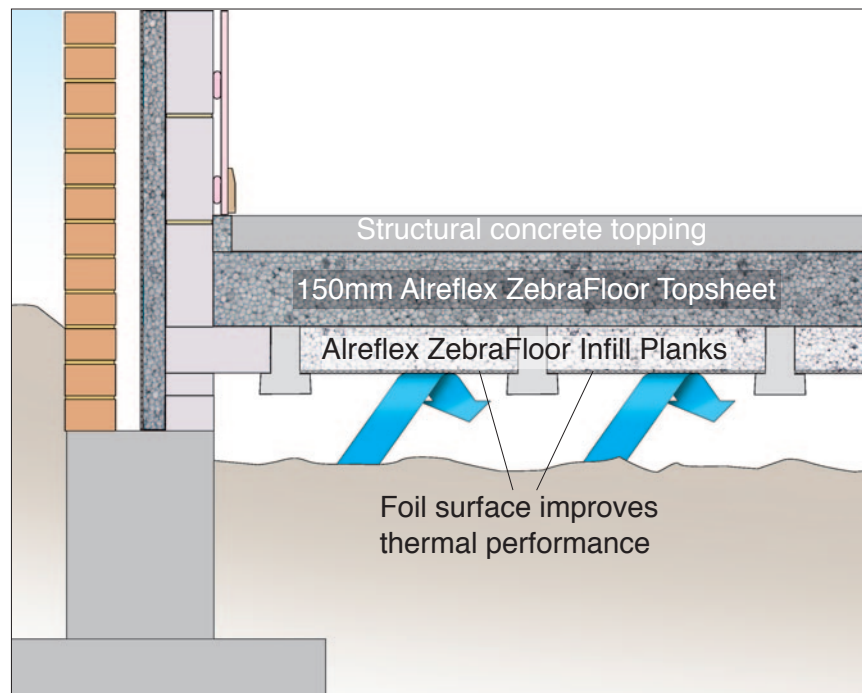
The system is made up of 2 components:

Alreflex ZebraFloor Infill Planks

Specially designed EPS planks that take the place of the standard concrete blocks in a beam & block floor.

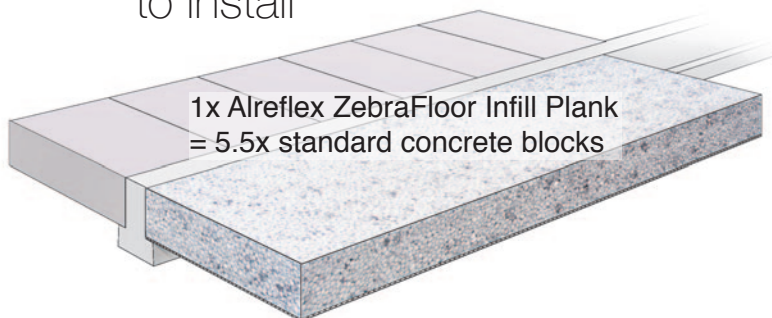
Alreflex ZebraFloor Top Sheet

High performing thermal EPS boards designed specifically with the strength required to work in the ZebraFloor System.



The system is finished with a structural concrete topping laid over the Alreflex ZebraFloor Top Sheet.

Fast and easy
to install



Easy to use

Alreflex ZebraFloor infill Planks are made of EPS, making them very light, easy to handle, cut and install.

Fast installation

Alreflex ZebraFloor Infill Planks are the same width as a standard concrete block, but they are 1.2m long, so one plank is the equivalent of 5.5 concrete blocks making installation much faster and cost effective.

No need to re-design beam layouts

Unlike other insulated block systems the ZebraFloor Infill planks are the same width as a standard block. This means that beam layouts do not need to be revised to accommodate wider insulation planks.

NHBC Accepts Certified



The insulation components of the Alreflex ZebraFloor system are independently certified by NHBC Accepts.

This means that you can be assured the these products

meet all of the relevant European and British standard as well as the high standards set out by the NHBC. Alreflex ZebraFloor boards are UKCA marked and tested to BS EN 15037-4.

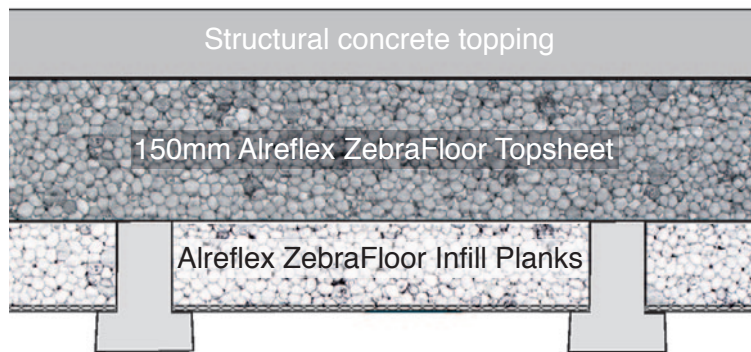
Part L 2021 - Improve performance & maintain existing floor levels

Alreflex ZebraFloor provides an ideal solution to the requirements of Approved Document Part L 2021.

The ZebraFloor system with a 75mm Topsheet achieves an equivalent thermal performance to a standard

beam & block floor with aircrete infill blocks and 75mm PUR overlay.

The ZebraFloor system with a 150mm Topsheet achieves an equivalent thermal performance to a standard beam & block floor with dense infill blocks and 150mm PUR overlay.



Typical solution

Achieves a U-value of 0.10 - 0.13W/m²K depending on P/A ratio.

U-Value examples

A ground floor U-value is dependant on its perimeter to area (P/A) ratio. The table below shows the expected U-values at set ratios.

For project specific calculations please contact our Technical Department on 01582 544255.

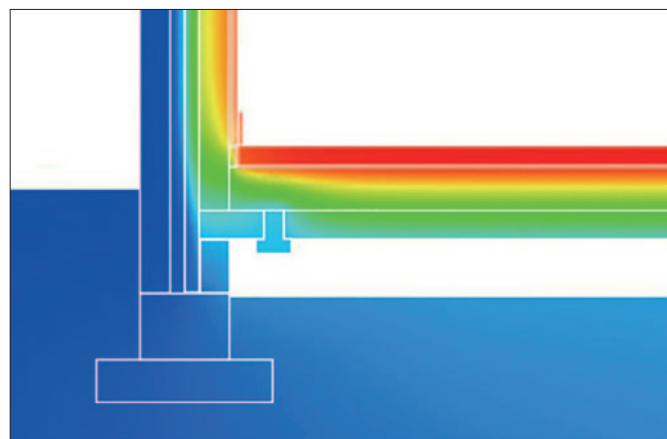
P/A ratio	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
ZebraFloor system with 75mm Top Sheet	0.12	0.14	0.16	0.17	0.17	0.18	0.18	0.18	0.19
ZebraFloor system with 150mm Top Sheet	0.09	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.13
ZebraFloor system with 225mm Top Sheet	0.07	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.10

The U-values shown in this table are based on standard BRE beam sizes and centres.

Thermal bridging

The benefits of a high performance flooring system can be completely lost if the design at perimeters creates a thermal bridge, allowing the cold to bypass the insulation.

The Alreflex ZebraFloor perimeter detail has been designed to minimise thermal bridging, ensuring that the full benefit of the system is realised.



Psi Value examples

Wall block	ZebraFloor topsheet thickness	Ψ
Celcon Solar	75mm	0.079
Celcon Solar	150mm	0.064
Celcon Solar	225mm	0.061

Wall construction - Brick outer with 50mm Alreflex Platinum Insulation, block listed & plasterboard on dabs.

Floor construction - Alreflex ZebraFloor system with Topsheet as listed.

Guidance, advice, assessments and calculations

The Thermal Economics Technical Team have vast experience in providing insulation solutions for regulation changes, helping to guide many of our clients to successful designs since the 1980's.

Our "concept to completion" ethos means that when working on solutions we do not just focus on the insulation that we can provide, we look at the entire building envelope and beyond; from the bricks and blocks being used to heating systems and renewable technologies that could be used.

By doing this we can provide a complete insulation solution that is both cost effective and suited to the way that you build.



Technical Services include:

- SAP Assessments
- U-value Calculations
- Interstitial Condensation Calculations
- Psi Value Assessments
- WUFI Analysis

To find out more about how we can help you achieve Part L 2021 compliance please contact our Technical Department on 01582 544255 or email info@thermal-economics.co.uk

ENVIRONMENTALLY FRIENDLY MATERIALS - RECYCLED & SUSTAINABLY SOURCED

Thermal Economics is an ISO 9001 and ISO 14001 certified company with a proven history of developing high performance innovative products using recycled and sustainable materials.

As the core of our Thermal Insulation we utilise 100% recyclable EPS. Not only is EPS an excellent insulator, but also one



of the few materials given an A+ environmental rating by the BRE.

- Zero ODP- no blowing agents
- GWP- Less than 5

This demonstrates our passion for making a difference not just in the present, but for our future.



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Visit our website for mobile friendly installation guides



Choose the right product- call Thermal Economics Technical Department on 01582 544255
For all our Acoustic and Thermal insulation products visit: www.thermal-economics.co.uk