

Internal floor

Refurbishment of timber separating/internal floor

Earthwool Flexible Slab

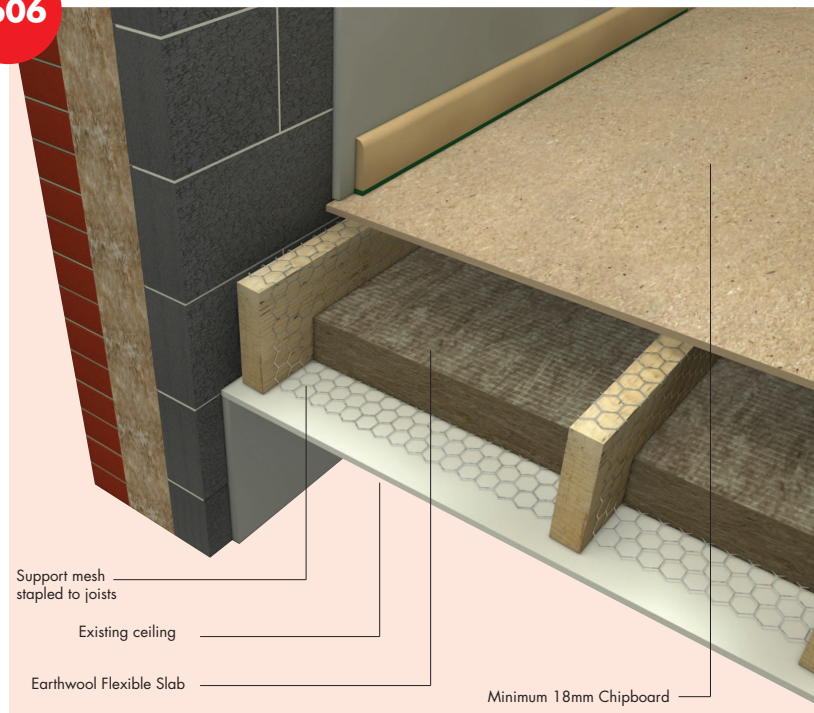


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- Existing ceiling can be retained, avoiding disruption to rooms below
- Provides thermal and acoustic insulation as well as fire resistance
- Meets the requirements of Approved Document E for sound resistance of internal floors

Earthwool Flexible Slab

- Non-combustible with a Euroclass A1 reaction to fire rating
- A+ Generic BRE Green Guide rating
- Zero Ozone Depletion Potential (ODP)
- Zero Global Warming Potential (GWP)



Products

Earthwool Flexible Slab is a multi-purpose rock mineral wool slab designed to be friction fitted in a wide range of acoustic, thermal and fire resistant applications.

Introduction

Where the loft space of a two storey house is converted into habitable accommodation, the floor to the new rooms must have 30 minutes fire resistance over any part of the escape route directly below. This is often the case when, for example, the floor of the new room extends over a landing in the stairway enclosure below. The solution on this page provides the required period of fire protection without having to upgrade the existing ceiling.

Typical construction

The use of Earthwool Flexible Slab in a suspended timber floor achieves one hour fire resistance, whilst allowing the existing ceiling to be retained.

To achieve one hours fire resistance:

- The floor deck should be at least 18mm thick tongued and grooved chipboard or timber boarding
- The joists must be at least 200mm deep and 37mm wide
- The wire mesh should be stapled to the sides of the joists at least 40mm above the ceiling level
- Any ceiling can be used

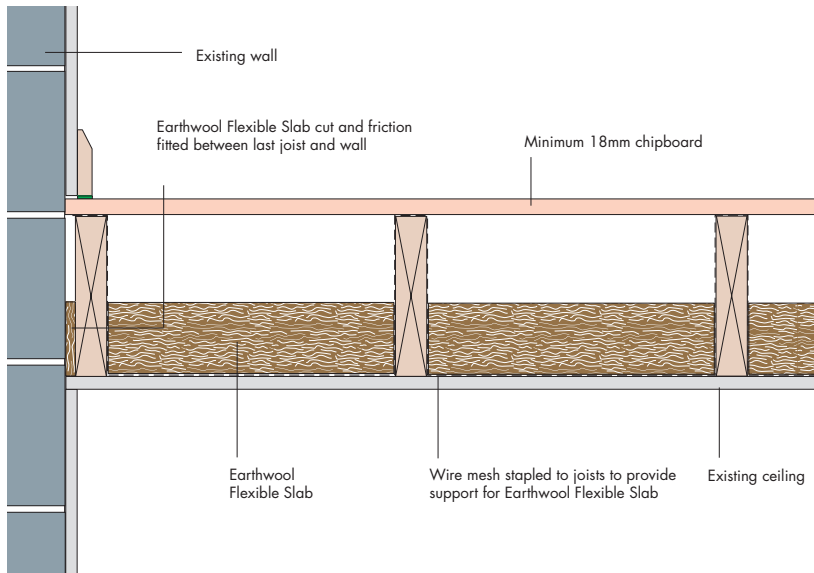
Installation

After removal of the floor deck, line the voids in the floor with 25mm wire mesh, to form a support tray for the insulation. Staple the wire mesh to the sides of the joists, at least 40mm up from ceiling level.

Cut 100mm Earthwool Flexible Slabs to size and lay onto the wire mesh support, so that there are no gaps between the insulation and the joists. Butt joint the insulation slabs so there are no gaps between them.

Fix a chipboard floor deck, at least 18mm thick, over the entire floor area.

Typical wall floor junction



Typical specification

Lay 100mm Earthwool Flexible Slab on 25mm chicken wire mesh, stapled to sides of joists at least 40mm up from ceiling level and at 600mm centres. The joists should be at least 200 x 37mm and spaced at not more than 600mm centres. The flooring board to be at least 18mm thick.



Alternatively, consult the National Building Specifications, Standard version clause/clauses... P10/250.....

Knauf Insulation specification clauses can be downloaded from knaufinsulation.co.uk/nbs

Performance

Fire performance

Earthwool Flexible Slab is classified as Euroclass A1 to BS EN 13501-1 and non-combustible to BS 476: Part 4: 1970 (1984), Class 1 Surface Spread of Flame to BS 476: Part 7: 1997 and Class '0' to the Building Regulations.

Acoustic

The acoustic performance of an internal floor containing 100mm of Earthwool Flexible Slab (and 12.50mm standard plasterboard ceiling) will be at least 40dB and therefore, meet the requirements of Approved Document E of the Building Regulations.