KNAUF INSULATION

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ONE HOUR FLOOR UPGRADE

LOFT CONVERSIONS

Using Rocksilk® Flexible Slab

Interactive document

Build on us.

- 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
- Rocksilk® Flexible Slab is a Rock Mineral Wool slab, designed for use in multiple thermal and acoustic applications as well as the fire protection of a loft conversion floor.

APPLICATION

Where the loft space of a two storey house is converted into habitable accommodation, the floor of the new rooms must have a minimum of 30 minutes fire resistance over any part of the escape route directly below. This is often the case when the floor of the new rooms extends over a landing in the stairway enclosure below.

The solution above provides the required period of fire protection without having to upgrade the existing ceiling.

Refer to tables A1 and A2 in Annex A of Approved Document B parts 1 & 2 for exact requirements.

CONSTRUCTION PERFORMANCE

Rocksilk® Flexible Slab achieves up to 60 minutes fire resistance in a suspended timber floor, whilst allowing the existing ceiling to be retained.

To achieve 60 minutes fire resistance at 400mm joist centres:

- The floor deck should be minimum 18mm thick tongued and grooved chipboard or timber boarding.
- The joists must be minimum 195mm deep and 47mm wide at 400mm centres using minimum C16 timber.
- 0.7mm chicken wire should be stapled to the sides of the joists at least 40mm above the ceiling level.
- Any ceiling finish can be used.

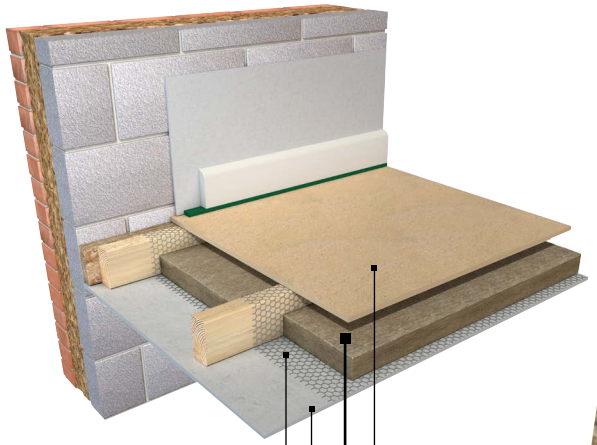
To achieve 60 minutes fire resistance at 600mm joist centres:

- The floor deck should be minimum 22mm thick tongued and grooved chipboard or timber boarding.
- The joists must be minimum 220mm deep and 45mm wide at 600mm centres using minimum C24 timber.
- 0.7mm chicken wire should be stapled to the sides of the joists at least 40mm above the ceiling level.
- Any ceiling finish can be used.
- To achieve 45 minutes fire resistance at 600mm joist centres:
- The floor deck should be minimum 22mm thick tongued and grooved chipboard or timber boarding.
- The joists must be minimum 220mm deep and 45mm wide at 600mm centres using minimum C16 timber.
- 0.7mm chicken wire should be stapled to the sides of the joists at least 40mm above the ceiling level.
- Any ceiling finish can be used.

PERFORMANCE

Fire Safety

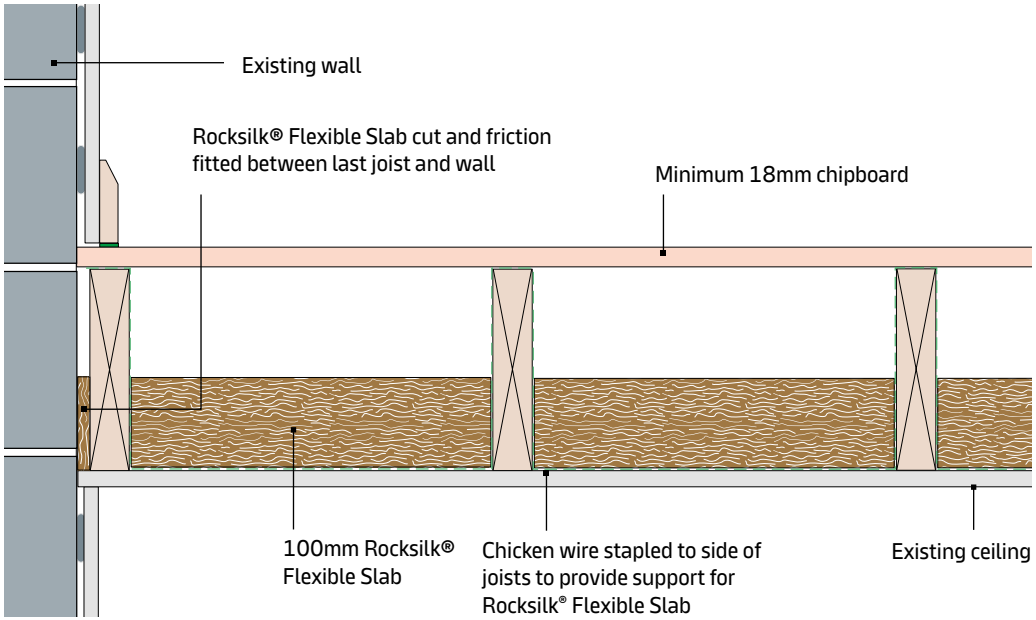
Rocksilk® Flexible Slab is classified as Euroclass A1 to BS EN 13501-1.



- Soft to touch
- Low levels of dust
- Low VOCs

with ECOSE® TECHNOLOGY

Typical wall floor junction



Assessment report number	4790542102-1	4790542102-1	4790542102-1
Performance (REI)	60	45	60
Test standard	EN1365	EN1365	BS476
Floor covering*	18mm T&G Chipboard	22mm T&G Chipboard	22mm T&G Chipboard
Joist centres (mm)	400	600	600
Joist grade (min)	C16	C16	C24
Insulation 100mm min	Rocksilk® Flexible Slab	Rocksilk® Flexible Slab	Rocksilk® Flexible Slab
Chicken wire (25mm)	0.7mm min gauge	0.7mm min gauge	0.7mm min gauge
Ceiling finish	Any	Any	Any
Sound reduction**	≥40dB	≥40dB	≥40dB

** Fixed with ring shank nails to BS8104 or NHBC/ Premier guidelines*
*** As a guideline only, based on lath and plaster weight of 15kg/m²*

TECHNICAL SPECIFICATION

Lay 100mm Rocksilk® Flexible Slab on 0.7mm gauge 25mm chicken wire, stapled to sides of joists at least 40mm up from ceiling level and at 200mm centres. The joists should be at least 220 x 45mm spaced at 600mm centres. The flooring board to be at least 22mm thick.

Alternatively, consult the National Building Specifications, Standard version clause P10/250 Insulation supported between floor joists.

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

Acoustic Performance

The acoustic performance of an internal floor containing 100mm of Rocksilk® Flexible Slab and a ceiling finish of at least 10kg/m² should meet the requirement of an internal floor Type C as per Approved Document E of the Building Regulations.

In separating floors, a floor treatment as described in Approved Document E will be required to comply with the requirements of the Building Regulations when forming a separating floor from an existing floor by material change of use.

Compliance can only be demonstrated by a package of sound testing agreed with Building Control.

Environmental Performance

Rocksilk® Flexible Slab contains no ozone-depleting substances or greenhouse gases.
For further environmental information consult the relevant Environmental Product declaration, available on our website.

INSTALLATION

After removal of the floor deck, line the voids in the floor with 0.7mm chicken wire, to form a support tray for the insulation. Staple the chicken wire to the sides of the joists, at least 40mm up from ceiling level.

Cut 100mm Rocksilk® Flexible Slabs to size and lay onto the chicken wire 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.

Small gaps between the masonry wall and first joist should be filled with Rocksilk® Flexible Slab with no supporting chicken wire.

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

For full install information, please refer to the Flexible Slab Installation Guide

Contacts

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