ROCKFLOOR® - Ground Bearing Slab

Tools required

- Insulation saw
- Tape measure

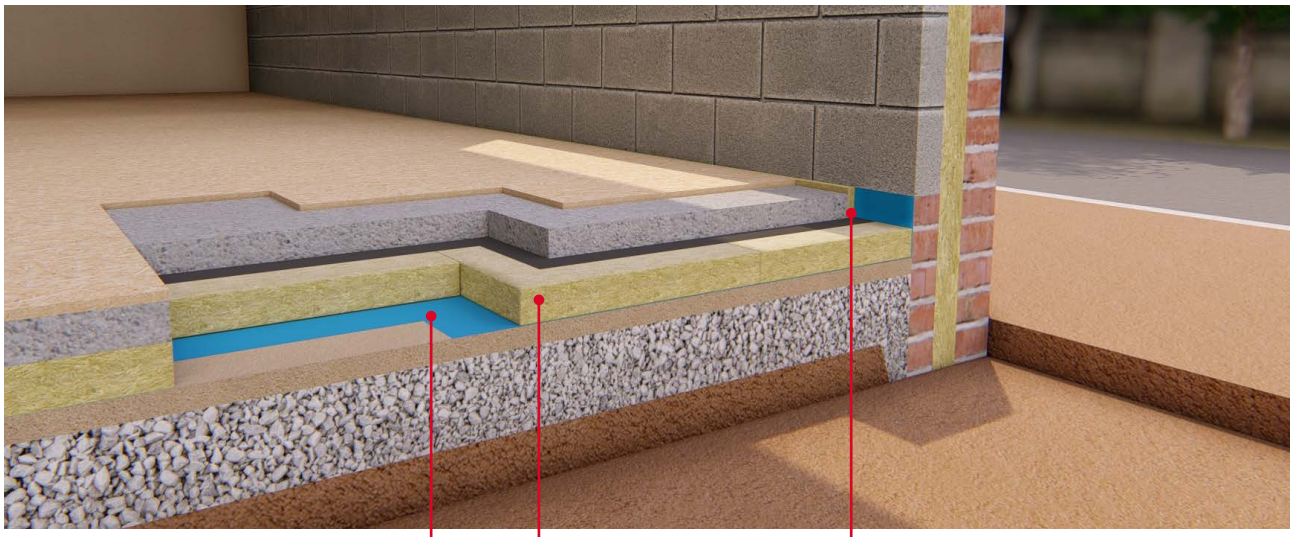
Fixing and application

As the U-value for ground floors is dependent upon size, shape, soil type, edge, insulation etc, it is not possible to quote specific values. The following tables show the insulation thickness required to suit floor types based on their P/A ratio.

	U-value (W/m²K)			
	0.25	0.22	0.20	0.18
P/A ratio	Thickness (mm)	Thickness (mm)	Thickness (mm)	Thickness (mm)
0.1	nil	nil	nil	nil
0.2	30	50	65	90
0.3	60	80	95	120
0.4	75	95	110	130
0.5	85	105	120	140
0.6	90	110	130	150
0.7	95	115	130	150
0.8	105	120	140	160
0.9	105	125	140	160
1.0	110	130	145	175

Construction 1: Ground bearing slab

Thermal ROCKFLOOR® can be installed below the concrete slab or below screed.



Installation considerations

ROCKWOOL ROCKFLOOR® has a high compressive strength making it suitable for use in a wide range of applications. This means ROCKFLOOR® can support typical loads that arise in dwellings, offices, shops and similar areas, for further details contact the ROCKWOOL Technical Solutions team. The compressive strength is based on evenly distributed loading, and as such the boards should be protected where there is frequent footfall, step down areas and access routes whilst exposed during installation, and prior to the laying of a permanent covering.

Care must be taken to ensure the boards are not exposed to the wet and moisture, before and during installation, until the floor is permanently covered and protected.

Laying method

The ROCKFLOOR® boards should be laid lengthways to the longest wall, in a staggered joint pattern, tissue face upwards. The joints should be laid with tightly butted joints. There should be no gaps at abutments. For dual layered systems, always ensure the tissue face is laid facing upwards, and with vertically staggered joints. The offcut at one end of the first row is then used to start the next row and similarly with subsequent rows.

An upstand of ROCKFLOOR® should be placed around the perimeter to isolate the screed thermally and acoustically from the wall. ROCKFLOOR® is water resistant but requires a DPM to protect against rising damp. The DPM should be laid on an even flat surface, sealed with the DPC and not be holding water on its surface.

Applications

Traditional sand and cement screeds:

Standard sand and cement screeds should be laid at a minimum 65mm thick. The screed should contain a light wire mesh reinforcement and be laid strictly in accordance with BS 8204.2003+A1:2009 Part 1.

Calcium sulphate / anhydrite screeds:

Where thinner, high performance screeds are required, these must be laid in accordance to the manufacturer's guidelines. Anhydrite screeds provide an ideal flat surface, can reduce installation time and offer floor to ceiling height advantages over traditional sand and cement screeds. Typically laid at a minimum of 40mm thick, wire mesh re-enforcement is not usually required.

Under slab application

ROCKFLOOR® can also be placed under the slab, provided the slab is only supporting normal floor loads. The ROCKFLOOR® should be placed on the DPM prior to pouring the concrete. An upstand of ROCKFLOOR® must be placed around the perimeter to isolate the floor slab thermally from the wall.

Boarded applications

Ensure the sub-floor is level. ROCKFLOOR® will absorb minor imperfections but if the floor is generally uneven a levelling screed should be applied. On suspended timber floors the ROCKFLOOR® should be supported on 15mm thickness plywood nailed to the joists.

It is recommended that a polyethylene VCL (min. 1200 gauge) be installed either immediately below or above the insulation to protect the chipboard from moisture migration.

To allow for expansion of the chipboard a minimum gap of 10mm should be provided around the room perimeter. ROCKFLOOR® should also be installed in this gap, and where acoustic insulation is required a gap of approximately 5mm should be left between the chipboard and the bottom edge of the skirting.

At thresholds, stair landings, or where a change in floor construction occurs, the insulation should be cut back and a timber batten of the same thickness as the insulation inserted to reinforce the edge. Where acoustic insulation is required, the batten thickness should be reduced to include a 6mm thick neoprene isolation strip bonded to the batten.

Other installation considerations

Heavy fixtures (such as baths, kitchen units etc.)

It is recommended that permanently fitted heavy items such as baths, WCs, kitchen units and the like should be supported directly from the sub-floor or via previously positioned timber battens recessed within the insulation layer.

Service runs

Services may be accommodated by either recessing the insulation or, where access is required, by using purpose made ducts. Consideration should be given to the local Water Bye-Laws (Bye-Law 58) regarding the provision of access to pipes. When electrical conduit is to be placed within or below the insulation, the electrical sub-contractor should check whether the size of the cables needs to be increased to comply with IEE Wiring Regulation.

Health & safety

The mechanical effect of fibres in contact with skin may cause temporary itching.

Cover exposed skin

When working in unventilated area wear disposable face mask.

Clean area using vacuum equipment.

Waste should be disposed of according to local regulations.

Rinse in cold water before washing.

Ventilate working area if possible.

Wear goggles when working overhead.