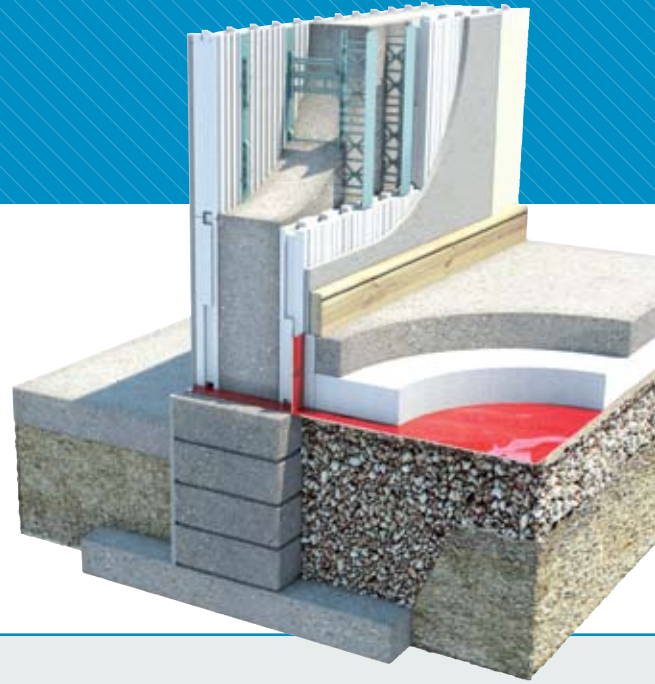


KOREFLOOR



KORE Floor is a floor insulation system for use:

- ▶ Below a concrete floor slab
- ▶ Below a cement based screed on a concrete slab with a hardcore base
- ▶ Above a suspended concrete floor
- ▶ Between the joists of a suspended timber floor

Description

KORE Floor is a high performance floor insulation consisting of rigid polystyrene boards cut from moulded blocks of EPS. The closed cell nature of the boards ensures a consistent thermal and compressive performance throughout the lifetime of the building. KORE Floor is available in two grades of material.

KORE Advantages

Excellent thermal and compressive properties, Significantly reduced heat loss, can be laid in damp conditions without compromising product performance or longevity.

Dimensional Table

Length	1200; 1800 and 2400 mm
Width	600 and 1200 mm
Thickness	19–300mm

Other sizes and thickness are available upon request

U-Value Calculations

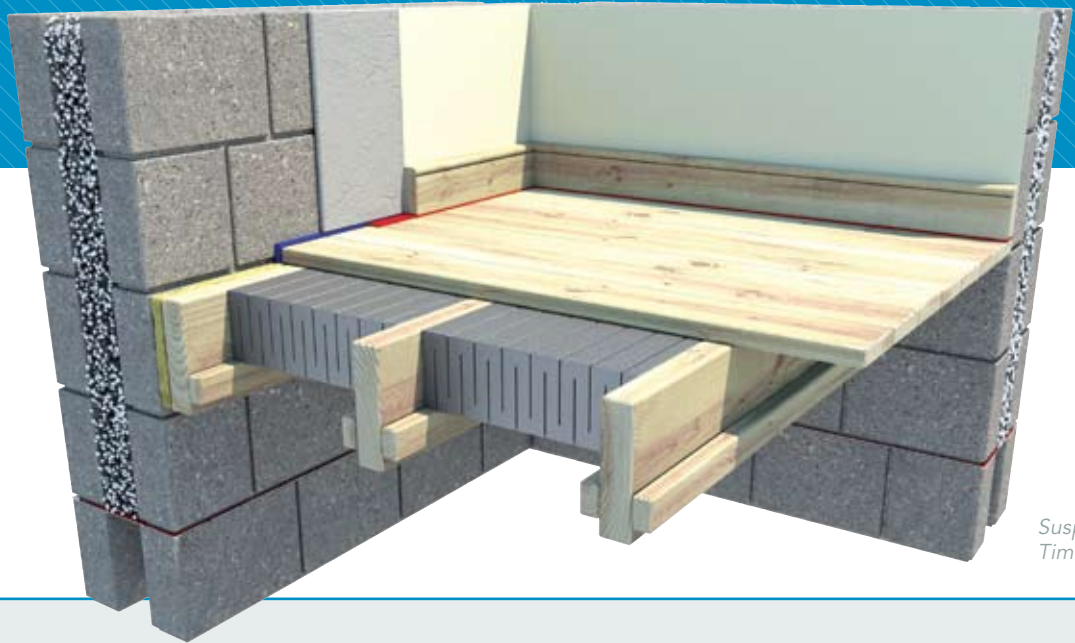
The U-Value of a floor is calculated by dividing the floor exposed perimeter (P) by the floor area (A). TGD Part L of Building Regulations requires that the U-Value of exposed floor must not exceed 0.25W/m²K. Where the source of space heating is underfloor heating, a floor U-Value of 0.15W/m²K is required. (Calculation Method I.S. EN ISO 6946.)

Product	Conductivity	U-Value (W/m ² K)	P/A Calculations								
			0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Ground Floor Slab*											
KORE Floor SD(mm)	0.037 W/mK	0.25	55	80	90	100	105	105	110	115	115
KORE Floor HD(mm)	0.034 W/mK	0.25	50	75	80	90	95	100	100	105	105
KORE Floor Silver(mm)	0.030 W/mK	0.25	45	65	70	80	85	85	90	90	95
Suspended Timber Floor*											
KORE Floor SD(mm)	0.037 W/mK	0.25	80	105	115	120	125	130	130	135	135
KORE Floor HD(mm)	0.034 W/mK	0.25	80	100	105	115	120	120	125	125	130
KORE Floor Silver(mm)	0.030 W/mK	0.25	70	90	100	105	110	110	115	115	120
Ground Floor Slab with Underfloor Heating											
KORE Floor SD(mm)	0.028 W/mK	0.15	110	130	140	150	160	160	160	160	160

* Ground default value taken as 2.0W/m²K



Concrete slab



Suspended Timber Floor

Physical Properties

Properties	Units	Density	
	kg/m ³	15–20 Standard	20–25 Heavy
White EPS			
Thermal Conductivity	W/mK	0.037	0.034
Compressive Strength	kPa	>95	>211
Bending Strength	kPa	>171.70	>377.10
Dimensional Strength	DS(n)	2	2
Silver EPS			
Thermal Conductivity	W/mK	0.030	0.028
Compressive Strength	kPa	>95	>211
Bending Strength	kPa	>171.70	>377.10
Dimensional Strength	DS(n)	2	2

Insulation above the slab

- When installing above the ground floor slab, the floor slab should be level. The concrete floor over which the KORE Floor boards are to be laid should be left as long as possible to maximise drying out.
- A minimum of 50mm vertical KORE Floor strips should be placed at the floor perimeter prior to the installation of the boards to minimise thermal bridging. The strip should be deep enough to reach the top of the screed.
- KORE Floor boards are cut to size, if necessary, and laid with closely butted joints, staggered with a break-bonded pattern and fitted tightly at the edges and around any service penetration.
- The minimum thickness of sand and cement screed is 65mm for domestic construction and 75mm for most other buildings. However architectural specifications should be consulted.

Insulation below the slab

- When installing below the ground floor slab, the hardcore should be level and must be bound with sand or cement based binding before application of the KORE Floor boards. A DPM should be placed below the KORE Floor boards.
- During construction, care must be taken to ensure that the KORE Floor boards are protected from mechanical damage.
- A minimum of 50mm vertical KORE Floor strips should be placed at the floor perimeter prior to the installation of the boards to minimise thermal bridging. The strip should be deep enough to reach the top of the slab.
- KORE Floor boards are cut to size, if necessary, and laid with closely butted joints, staggered with a break-bonded pattern and fitted tightly at the edges and around any service penetration.
- Electrical conduits, gas and water pipes or other services should, where possible, be accommodated by ducting or channels within the concrete slab. The insulation must be protected from direct contact with hot pipes.
- Where the reinforcing mesh is used in the slab the mesh should be fixed in position using galvanised spreader plates under the spacers, to avoid puncturing the DPM or radon barriers membrane.

Suspended Timber Floors

- When installing insulation between the joists of a suspended timber floor, the KORE Floor boards should be cut to fit between the timber joists and supported by carriers. These may be nails part driven into the side of the joists at a selected level, timber battens or proprietary saddle clips.
- Where services need to be accommodated below the floor, KORE Floor boards can be lowered to provide an insulated duct.
- Install flooring grade chipboard, ply or softwood timber flooring directly onto the joists fixing in the normal manner.
- Ensure that the void below the insulated suspended floor is well ventilated and that sleeper walls do not restrict the airflow.

CERTIFICATION

KORE Floor successfully received IAB Certification proving compliance with Building Regulations 1997–2007. Certificate Number 04/0097.