

Suspended Ground Floor - Beam and Block

Horley Town Council

02/06/2025

U Value

0.15 W/(m²·K)

Layer	Material	Thickness mm	Lambda W/(m·K)	R value m ² ·K/W
Internal Surface Resistance				0.170
Floor Finish	SAND CEMENT SCREED	70	1.400	0.050
Separation Layer	POLYTHENE SEPARATION LAYER	0.5		0.001
Insulation	KOOLTHERM K103	100	0.019	5.263
Damp Proof Membrane	DAMP PROOF MEMBRANE	0.9		0.001
Floor Deck	CONCRETE BEAM & BLOCK DECK (block k-value = 1.13 W/mK)	100	1.130	0.088
Bridging	CONCRETE BEAMS, 500.0 CENTRES		1.400	0.000
Bridge percentage	12%			
External Surface Resistance				0.187
Total Construction Thickness				271.4 mm

U-values calculated to BS EN ISO 6946:2017 or BS EN ISO 13370:2017 depending on application. For floor calculations the u-value result is dependent on the exposed perimeter and area entered into the calculator for each individual floor calculation. Soil type thermal conductivity taken as 1.5 W/mK, relevant to Clay/Silt. The physical and chemical properties of the products of Kingspan Insulation represent average values obtained by testing in accordance with generally accepted standards and are subject to standard tolerances.

Kingspan Insulation reserves the right to amend product specifications and thicknesses without prior notice. The information, calculations, technical details and fixing instructions included in any documentation or advice including this calculation are given in good faith and apply only to uses described in this context.

Product thicknesses included within the calculation should not be taken as being available ex-stock and reference should be made to the current Kingspan Insulation price-list or advice sought from Kingspan Insulation's Customer Service Department. Kingspan Insulation is not liable for damages in case of wrong and/or incomplete information provided.

Furthermore, Kingspan Insulation does not guarantee a certain result.

Recommendations for use should always be verified for suitability and compliance with actual requirements, specifications and any applicable laws and regulations. For all applications or conditions of use, Kingspan Insulation offers a Technical Advisory Service, the advice of which should be sought for uses of Kingspan Insulation products that are not specifically described. No claims, representations, or warranties, whether express or implied, are made by Kingspan Insulation as to the use, safety, reliability, durability and performance of any of our products, unless explicitly stated. Furthermore, Kingspan Insulation accepts no liability whatsoever for the use, safety, reliability, durability, and performance of any of our products, unless explicitly agreed in writing. Please check that your copy of our literature is current by contacting the Kingspan Insulation Marketing Department.

For wall applications (excluding K-roc)

There are potential restrictions placed upon this product which vary dependant on building type, height, construction and location. For guidance regarding the routes to compliance for meeting the fire safety requirements of the Building Regulations /Standards, refer to the relevant Technical Bulletins and links to Government websites at www.kingspaninsulation.co.uk/fireregulations