



Cotswold Hempstone

Technical Data 2024/26

Industrial Hemp Bio-Fibre Building Block

The thermal performance of a well designed hemp specific building envelope can eliminate the need for extra insulation and in some instances, a cavity wall.

• 100% Bio-Based & Natural	• High Energy Saving
• No VOC Gases	• High Fire Resistance
• Carbon Negative Material	• High Sound Absorbing
• Repels Pests, Mold & Damp	• Optimal Thermal Regulation
• Vapour Permeable (Breathable)	• Highly Durable & Long Lasting
• Fast & Easy Build Method	• Price Competitive

Specification	Unit	12cm 120mm	20cm 200mm	25cm 250mm	30cm 300mm	Standard
Modular Dimensions	mm	500x250	500x250	500x300	500x250	EN 772-16
Width	mm	120	200	250	300	EN 772-16
Blocks per m ² *	Blocks	7.6	7.6	6.4	7.6	-
Dry Weight	Kg	5.3	8.9	13.3	13.3	-
Curing Weight (Max)	Kg	6.4	10.8	15.9	15.9	-
Embodied Carbon per m ²	Kg/m2	10	10	10	10	-
Density	kg/m3	355	355	355	355	EN 772-13
Adhesive Mortar Consumption *	Kg /m2	11.2	18.6	21.3	27.9	-
Compression Strength	kPa	≥150	≥200	≥200	≥300	EN 772-1
Thermal Conductivity	W/m ² K	00.82	00.82	00.82	00.82	EN 12664
Thermal Resistance (R-Value)	m ² K/W	1.46	2.44	3.05	3.66	ISO 6946
Thermal Transmission (U-Value) **	W/m ² K	0.59	0.37	0.3	0.26	ISO 6946
Specific Heat Capacity	J/kg°K	1091.8	1091.8	1091.8	1091.8	-
Thermal Delay **	H	5.3	9.4	11.9	14.4	ISO 13786
Reaction to Fire	+90/min	B-s1.d0	B-s1.d0	B-s1.d0	B-s1.d0	EN 13501-1
Sound Absorption	α	≥0.9	≥0.9	≥0.9	≥0.95	EN ISO 354
Sound Resistance RW **	dB	42	45	45	45	ISO 10140-1
Water Vapour Diffusion Resistance	μ	5.25	5.25	5.25	5.25	ISO 12572
SD Diffusion Equivalent Thickness	m	0.63	1.05	1.31	1.58	EN ISO 12572

* With 8mm adhesive mortar

** With 2mm breathable lime plaster

