

Technical specifications – earth4Earth carbon capture bricks

Manufactured to BS-EN-771-1

UKCA/CE/EPD certified

BBA certification pending



Characteristics	L0 – No binder	L10 – Conventional binder	N10 – 10% e4E binder	N20 – 20% e4E binder	N30 – 30% e4E binder
Colour*	Dark grey	Grey	Light brown	Light grey	White-grey
Dimensions (mm)	215 x 102.5 x 65	215 x 102.5 x 65 [†]	215 x 102.5 x 65 [†]	215 x 102.5 x 65	215 x 102.5 x 65
Dimensional Tolerances					
Tolerance category	T2	T2 [†]	T2 [†]	T2	T2
Range category	R2	R2 [†]	R2 [†]	R2	R2
Mean compressive strength (N/mm ²)	7	50.9 [†]	39.1 [†]	35	46
Max declarable strength, Category I 95% (N/mm ²)	<i>tbc</i>	36.9 [†]	25.0 [†]	<i>tbc</i>	<i>tbc</i>
Declared compressive strength (N/mm ²)	3.5	10	10	<i>tbc</i>	<i>tbc</i>
Masonry strength, EN 1052-1 (N/mm ²)	<i>tbc</i>	6.28 [†]	7.06 [†]	<i>tbc</i>	<i>tbc</i>
Freeze/ thaw resistance	N/A	F2	F2	<i>tbc</i>	<i>tbc</i>
Water absorption, 24h	N/A	13% [†]	12% [†]	<i>tbc</i>	10%
Water absorption, initial rate (kg/(m ² ·min))	<i>tbc</i>	0.5 [†]	1.1 [†]	<i>tbc</i>	<i>tbc</i>
Water vapour permeability (mg/m·h·Pa)	<i>tbc</i>	0.035 [†]	0.048 [†]	<i>tbc</i>	<i>tbc</i>
Thermal conductivity W/(m·K)‡	0.8	<i>tbc</i> ‡	<i>tbc</i> ‡	0.8	0.8
Specific heat capacity (J/(g·K))	0.84 [†]	0.78 [†]	0.84 [†]	0.78 [†]	0.86 [†]
Active soluble salts content	S2	S2 [†]	S2 [†]	<i>tbc</i>	<i>tbc</i>
Reaction to fire	A1	A1 [†]	A1 [†]	A1	A1
Fire resistance, loadbearing wall	<i>tbc</i>	REI 264 minutes ^{§†}	REI 264 minutes ^{§†}	<i>tbc</i>	<i>tbc</i>
Dangerous substances	2003/33/EC	2003/33/EC	2003/33/EC	2003/33/EC	2003/33/EC

*Natural colour of the brick can vary depending on soil source. Colour of the final product can be customised by pigment addition.

[†]Third-party tested.

‡Awaiting updated third-party data for L10 and N10 bricks.

§Test was discontinued after a period of 264 minutes.

Packaging specifications - earth4Earth carbon capture bricks

Characteristics	L0 - No binder	L10 – Conventional binder	N10 - 10% e4E binder	N20 - 20% e4E binder	N30 - 30% e4E binder
Bricks per m ²	343	343	343	343	343
Bricks per ft ²	32	32	32	32	32
Bricks per pallet	400	400	400	400	400
Pack weight (tonnes)	1.1~1.2	1.1~1.2	1.1~1.2	1.1~1.2	1.1~1.2
Pack dimension (m)	~1.08mx1.08mx0.69	~1.08mx1.08mx0.69	~1.08mx1.08mx0.69	~1.08mx1.08mx0.69	~1.08mx1.08mx0.69

Carbon absorbency - earth4Earth carbon capture bricks

	L0 – No binder	L10 – Conventional binder	N10 – 10% e4E binder	N20 – 20% e4E binder	N30 – 30% e4E binder
CO ₂ absorption and permanent storage per brick during the life cycle	N/A	178g of CO ₂	178g of CO ₂	356g of CO ₂	535g of CO ₂