

# Technical specifications – earth4Earth carbon capture bricks

Manufactured to BS-EN-771-1

UKCA and CE certified

EPD and BBA certification pending



| Characteristics                                    | L0 – No binder                                               | L10 – Conventional binder                                    | N10 – 10% e4E binder                                         | N20 – 20% e4E binder                                         | N30 – 30% e4E binder                                         |
|----------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|
| Colour                                             | Yellow                                                       | Light yellow                                                 | Light yellow                                                 | Light grey                                                   | 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                                                           | R1                                                           |
| Declared compressive strength (N/mm <sup>2</sup> ) | 3.5                                                          | 10                                                           | 10                                                           | 7.5                                                          | 7.5                                                          |
| Water absorption                                   | N/A                                                          | 14.31%                                                       | 10.17%                                                       | 13.55%                                                       | 16.86%                                                       |
| Equivalent thermal conductivity                    | 0.8 W/(m·K)                                                  | 0.9 W/(m·K)<br>(estimated and TBC)                           | 0.9 W/(m·K)                                                  | 0.8 W/(m·K)                                                  | 0.8 W/(m·K)                                                  |
| Specific heat capacity                             | 0.8411 J/(g·K)                                               | 0.7822 J/(g·K)                                               | 0.8392 J/(g·K)<br>(estimated and TBC)                        | 0.7756 J/(g·K)                                               | 0.8584 J/(g·K)                                               |
| Active soluble salts content                       | S2                                                           | S2                                                           | S2                                                           | S2                                                           | S2                                                           |
| Reaction to fire                                   | A1                                                           | A1                                                           | A1                                                           | A1                                                           | A1                                                           |
| Dangerous substances                               | Eco-friendly and fully recyclable, compliant with 2003/33/EC | Eco-friendly and fully recyclable, compliant with 2003/33/EC | Eco-friendly and fully recyclable, compliant with 2003/33/EC | Eco-friendly and fully recyclable, compliant with 2003/33/EC | Eco-friendly and fully recyclable, compliant with 2003/33/EC |

# 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 <sup>2</sup>  | 343               | 343                       | 343                  | 343                  | 343                  |
| Bricks per ft <sup>2</sup> | 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

|                                                                                  | LO – No binder | L10 – Conventional binder | N10 – 10% e4E binder    | N20 – 20% e4E binder    | N30 – 30% e4E binder    |
|----------------------------------------------------------------------------------|----------------|---------------------------|-------------------------|-------------------------|-------------------------|
| Raw material CO <sub>2</sub> emissions from binder production per brick          | N/A            | 178g of CO <sub>2</sub>   | 0g of CO <sub>2</sub>   | 0g of CO <sub>2</sub>   | 0g of CO <sub>2</sub>   |
| CO <sub>2</sub> absorption and permanent storage per brick during the life cycle | N/A            | 178g of CO <sub>2</sub>   | 178g of CO <sub>2</sub> | 356g of CO <sub>2</sub> | 535g of CO <sub>2</sub> |