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SUSTAINABILITY FACTSHEET #10

ClickBricks for Innovative Circular Construction

Essentially, ClickBricks are clay bricks that do not need to be connected by cement to create a stable wall. Produced by Daas Baksteen, ClickBricks can be dry stacked together by means of metal clips, to create a wall, without the use of cement or glue.

Most importantly, these bricks can be taken apart after the building has served its life and the bricks can be used for a new building.

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THE VOICE OF THE CLAY BRICK INDUSTRY
CLAYBRICK for good

environment-friendly
SECURE SAVE SUSTAIN STYLE
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WHAT ARE CLICKBRICKS?

ClickBricks can be dry stacked together by means of metal clips, to create a wall without the use of cement or mortar. The ClickBrick concept was developed by Daas Baksteen for aesthetic reasons (to remove the visible mortar lines between bricks), but it soon became apparent that the concept also allowed for the direct re-use of clay bricks, and an innovative way to minimise construction waste.

The Daas ClickBrick is a wirecut facing brick made by extrusion. The bricks are custom milled and grooved to size after being fired in the kiln, resulting in the exact shape and size, with a tolerance of less than +/- 0.1 mm on the quoted height. The resulting built finish of the external wall is very smooth and clean, requiring little or no maintenance.. The bricks have a length of 238 mm, which results in open head joints of approximately 2 mm.

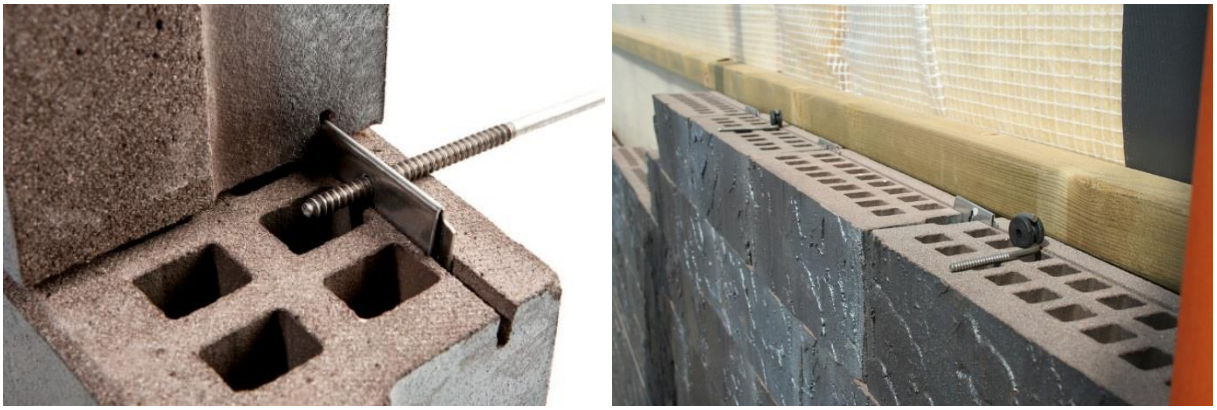

Figure1: Stainless Steel Clamping Bracket for Mechanical Anchoring brick layers

Figure 2: Bricks are shaped to interlock

The bricks have grooves in the two bed faces parallel to the wall. Metal clips can be placed in the grooves for connecting the bricks and for connecting the wall ties. The grooves are positioned at a fixed position in relation to the face of the bricks.

A wall can be built cleanly, without mechanical or electrical tools. By simply unstacking the bricks, they can immediately be reused elsewhere. Here too no mechanical demolition tools are required and no VOC's are released.

Benefits of ClickBricks

Simplicity

ClickBricks are simply snapped together, without the use of mortar or glue. The method does not require any additional special techniques to be used in wall construction and no special expertise or qualifications are required for using ClickBricks.

Weather Independent

Unlike traditional brickwork with a mortar joint, ClickBricks are not weather dependent and can be used for building construction all year round, thereby avoiding expensive on-site delays.

Faster Construction

Walls made up of Click Bricks are seven times quicker to construct than traditional brickwork, as no mortar is used in the process.

Reusable

The ClickBrick structure can be taken down and reused at any time in the future.

Unique Design

Removing the mortar joint from brickwork enables for the creation of entirely unique building facade designs.

Stronger Walls

The pressure and tensile force on a traditional brick wall is anything up to 30kg. On a ClickBrick wall, it is up to 60kg.

Wide Brick Range

ClickBricks are available in a wide range of brickwork finishes and colours

REUSABILITY IN THE BUILDING SECTOR

Circularity in the materials used for building construction is becoming increasingly important for architects and developers. Materials that offer flexibility, not only aesthetically but also in their potential for re-use following building demolition or dismantling are becoming preferred over permanent connections which result in an irreversible merge of materials (ABN AMRO, 2014).

Innovations such as ClickBricks, represent an evolutionary shift from traditional brick and mortar practices, which result in permanent structures that cannot be easily dismantled for re-use in new building construction, to innovative practices which extend the life-cycle of clay bricks and also minimize construction waste.

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For further information:
The Clay Brick Association of South Africa
Website: www.claybrick.org