

CEMENT TILE MANUFACTURING

“Manufacturing cement tiles is an art form, passed down from generation to generation. Each piece that comes out of the workshop bears not only the Azule logo on the back, but also the pride of each individual craftsman. For them, the tile represents the fruit of their labour and the heritage of a tradition”

Taken from the book: Cementtile: Evolution of an Art Form.

A good cement tile is compact, waterproof and very durable. During the production, only the best natural materials are used. These are mechanically compressed with high pressure. The different patterns are made by manually applying the different colours one by one in a hand-copper mould, which is also hand-made. It is a very careful and skilled process, and that can only be performed by highly trained professionals. The manufacturer of the tiles is decisive for the final quality of the tile.

The build-up

Cement tiles are made up of two different layers. This can be seen best if you look at the side of the tile.

First layer:

The wear layer/colour layer or the view. This is a fine mixture of white cement, crushed white marble (natural) pigments. The quality of this layer provides the abrasion resistance, and the colour and brightness of the tile. The layer is approximately 3mm thick, and should be impregnated several times after the tile has been glued. The final product has a natural lively feel and is very durable.

Second layer:

This layer, which consists of a mortar of cement and fine sand, is the basis of the product and strengthens the first layer. The second layer ensures that the entire tile can withstand high pressure. Both layers are compressed in a special cement tile, press into one single tile. The 2nd layer is about 12 millimetres thick.

The manufacturing process

For each new pattern, a new copper mould is made by hand. This fits exactly in a frame, which in turn is on top of a hydraulic press. The frame not only determines the size, but also the quality of the top layer of the cement tile. The pigment gets poured into the mould, colour by colour, exactly according to the desired pattern. (Picture 1). The pigment mainly consists of marble powder, fine white cement, organic pigments, and other minerals.

After the mould is removed in a special way, the colour layer is sprinkled (first visible layer) with a mixture of very fine sand and cement. This ensures that the abundant moisture is absorbed well (picture 2).

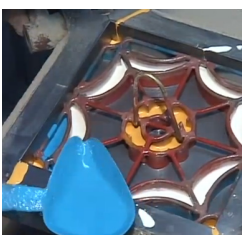
The third step of the process is the precision filling of the frame with a thicker mixture of sand and cement, which is carefully smoothed (picture 3).

After that the frame gets entirely sealed and the tile compressed in a hydraulic press (picture 4).

After the pressing process, the frame and the sealer are removed (picture 5) and the tile is carefully inspected for the desired quality and the desired pattern. Next, the tiles are emerged to harden in a water bath for 24 hours. Lastly, the tiles are stored in dry storage racks for 7 days, for the final hardening process.

Additional control

Each Azule cement tile gets a quality check once again before packaging. Azule cement tiles are always packed in boxes of 12.



picture 1



picture 2



picture 3



picture 4



picture 5