

# HOW CONCRETE ROOF TILE IS MADE

*Did you know that at each of Eagle's four manufacturing plants, concrete roof tiles are produced at a rate of 1 tile to every .50 - .75 seconds?*

*Discover how Eagle's concrete roof tiles are manufactured and why it's the superior choice over other roofing materials.*



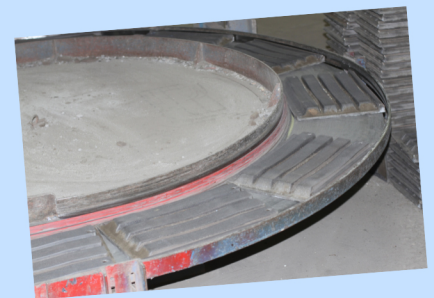
## 1 SOURCED FROM RAW MATERIALS

Each Eagle concrete roof tile is made by sourcing the highest quality raw materials available, which are: sand, cement, water and iron oxide, otherwise known as the pigment or color. As a green product, our tiles last longer, reduce energy consumption, lessen CO2 emissions, are recyclable and so much more.



## 2 EXTRUSION PROCESS

This mixture of natural ingredients is pressed or 'extruded' onto steel or aluminum molds, creating the shape of the tile. Eagle produces three mold types for our high, medium and low profiles.



## 3 CHECKS AND CLEANINGS

The molds undergo routine checks and cleanings by our quality control team to prevent sand, cement and sealer from accumulating in the crevasses as this can lead to tile deformities.

In addition, the standard tests include: a sand sieve analysis to ensure the proper size of sand grain is utilized, a cement draw down analysis to test the color and texture of cement, as well as an oxide color test to guarantee the proper amount of color is used to attain the desired pigment.



## 4 SENT TO DRY

Tiles are then placed into racks and sent to a drying kiln where they remain for approximately **4 hours**.



## 5 SEALER COATING

Once hardened and removed from the racks, the tiles receive a surface coating of a water-based masonry sealer to protect against the natural occurrence of efflorescence, which is a chalky white substance that occurs when lime deposits rise to the surface of any concrete material – in this case, the tile.

If efflorescence does occur, there is no need to worry as it **won't affect** the beauty or durability of the tile. We strongly recommend allowing natural weather conditions such as sunshine and rain to wash it out over time, as opposed to treating it with harsh chemicals, which can damage your roof.



## 6 BREAK AND MAINTENANCE TESTS

**Every hour**, randomly selected tiles endure additional testing to verify they either meet or exceed the code mandated minimum standard for a break strength of **300 PSI**, or pounds per square inch. Concrete roof tiles continue to get stronger in the weeks and months ahead.

The tiles also undergo thorough maintenance tests to ensure each manufactured product meets and exceeds the highest of industry weather rating standards including: Freeze-Thaw protection\* (excluding color bonded/ slurry tiles), Class A fire resistance, Class 3 and Class 4 impact resistance\* and high wind, withstanding sustained winds of up to **180mph**.

*\*Ratings depend on the roof tile profile and manufacturing location. Freeze-thaw excludes color-bonded/ slurry tiles.*



## 7 STACKED, BANDED AND SHIPPED

Following the carefully executed maintenance tests, the tiles are then stacked and banded into pallets by automated means. Each pallet contains approximately **300 sq. ft.** of roofing coverage and serve as a home for the tiles until they reach their final destination to be loaded and installed on a roof!



Learn more about the manufacturing process of concrete roof tile by visiting our website or by contacting your local Eagle Account Representative.  
[www.eagleroofing.com](http://www.eagleroofing.com)

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