

The Sustainable Attributes of Exterior Cladding Materials



Clay Brick – The Most Sustainable
Green Building Material Made

A True Look at “Green” Claims

STUCCO VS. BRICK

Prior to making decisions on cladding materials and their impact on the environment, it's important for builders to consider the true facts regarding siding products' green positions. Many materials claim green or sustainable attributes, but a comparison between stucco and brick shows the true story. A quick review of the facts will show that stucco is not as green as you think.

IN THE MANUFACTURING PROCESS

RECYCLED CONTENT

STUCCO

- Very little information available on the amount of recycled content actually incorporated.
- Recycled content limited to replacing a portion of the cement, only a small percentage of overall materials.

BRICK

- Contains both pre- and post-consumer recycled content, depending on the manufacturer.

MANUFACTURING AND DISTRIBUTION

STUCCO

- Manufacturing primarily located in the South and West, requiring finished product to be transported long distances.
- High CO₂ emissions and high embodied energy due to the manufacture of cement—one of stucco's main ingredients.

BRICK

- Waste products such as methane gas from landfills and sawdust used in production, depending on the manufacturer.
- At least two plants located within 500 miles of all but one of 50 largest MSAs.

THIRD PARTY CERTIFICATION

STUCCO

- Certification available through Built Green.

BRICK

- Manufacturers can achieve third-party certification for extent of recycled content, use of alternative energy, and amount of resources reduced.

ON THE JOB SITE

WASTE MANAGEMENT

STUCCO

- All construction waste must be sent to a landfill.

BRICK

- Reusable scrap materials, minimal packaging.
- Very little on-site waste produced due to modular units.

ENERGY EFFICIENCY

STUCCO

- Limited thermal mass since maximum thickness is 2 inches.

BRICK

- More thermal mass since typical brick veneer thickness is 3 to 3-5/8 inches.

LIFE CYCLE & DURABILITY

STUCCO

- 50 year life span when well maintained.
- Must be painted every 2-5 years.
- Joints must be maintained to prevent water infiltration.

BRICK

- 100 year life span.
- Low maintenance requirements.

SAFETY & SECURITY

STUCCO

- Does not provide 1-hour fire resistance rating.

BRICK

- Provides 1-hour fire resistance rating.
- Offers superior resistance to wind-blown debris.

RECYCLABILITY

STUCCO

- Cannot be recycled.

BRICK

- Unfired or scrap brick is recycled back into the production stream.
- Brick from demolition can be crushed and recycled into new brick or used as brick chips.
- Brick can also be used as a subbase material for pavements.

According to experts and certification groups, the future of green home building and sustainable design resides in the life expectancy and life cycle of the building, energy efficiency, and the impact building materials have at the end of their useful life. The Brick Industry offers building professionals a product that assists in all three areas.

BRICK IS A NATURALLY SUSTAINABLE MATERIAL

- ▶ Use of abundant natural resources, clay and shale.
- ▶ Improved manufacturing processes use less energy and reduce emissions.
- ▶ Use of alternative fuel resources such as landfill gas and wood waste materials.
- ▶ Strategically located plants to help reduce transport emissions.
- ▶ Contributes to energy efficient homes with high thermal mass.
- ▶ Long life cycle, durable, low maintenance, no painting required.
- ▶ Recyclable and biodegradable thereby reducing its embodied energy.
- ▶ A built-in and in-demand market for recycled re-use of old brick.

BRICK IS NOT ONLY A SUSTAINABLE CLADDING MATERIAL, BUT IT ALSO ADDS SIGNIFICANT VALUE TO A HOME AND OFFERS NUMEROUS OTHER BENEFITS

- ▶ Consumers prefer brick over other cladding/siding materials.*
- ▶ Brick's natural beauty is timeless and design possibilities are endless.
- ▶ Brick's longevity and local availability make it one of the greenest building products made today.
- ▶ Brick conveys a message of quality, image, and prestige about the home builder and community.
- ▶ Brick has the longest history of product performance and durability.
- ▶ Brick is virtually maintenance-free.
- ▶ Brick is a perfect fit within any architectural style.

* Source: Ducker Worldwide 2008 homebuyer research study

BRICK: THE GREEN POINTS ADD UP

National Green Building Standard™

Brick can assist in contributing up to **175½ points** out of approximately 2,000 possible points

LEED for Homes™ (USGBC)

Brick can assist in contributing up to **19½ points** out of a possible 136 points

FOR MORE INFORMATION ON THE SUSTAINABLE ATTRIBUTES OF CLAY BRICK, CONTACT THE BRICK INDUSTRY ASSOCIATION.



BRICK INDUSTRY ASSOCIATION

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