

The Sustainable Attributes of Exterior Cladding Materials

A True Look at “Green” Claims



Clay Brick – The Most Sustainable Green Building Material Made

METAL PANELS 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 metal panels and brick shows the true story. A quick review of the facts will show that metal panels are not as green as you think.

IN THE MANUFACTURING PROCESS

RECYCLED CONTENT

METAL PANELS

- Can contain both pre- and post-consumer recycled content, depending on the manufacturer.
- While recycled content is promoted, most panels have less than one-third recycled materials due to performance needs.

BRICK

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

MANUFACTURING AND DISTRIBUTION

METAL PANELS

- Possess one of the highest water and air pollution indices during the extracting and manufacturing process.
- Some plants are located within 500 miles of major MSAs.

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

METAL PANELS

- Cradle-to-Cradle certification for Centria products only.

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

METAL PANELS

- Very little installation waste created.
- However, manufacturing produces the highest water and air pollution indices.

BRICK

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

ENERGY EFFICIENCY

METAL PANELS

- Negligible insulation value provided.

BRICK

- High thermal mass properties allow heat to be stored and released later.

LIFE CYCLE & DURABILITY

METAL PANELS

- 60 year life span.
- Low maintenance requirements.
- Pitting of panel surface can occur over life.
- Staining of adjacent materials can occur due to water runoff.
- Oil canning (waviness) and shadowing (discernable stiffener grid visible) can occur on panel surface

BRICK

- 100 year life span.
- Low maintenance requirements.

SAFETY & SECURITY

METAL PANELS

- Easily dented or damaged.
- Provides low impact resistance to wind-blown debris.

BRICK

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

RECYCLABILITY

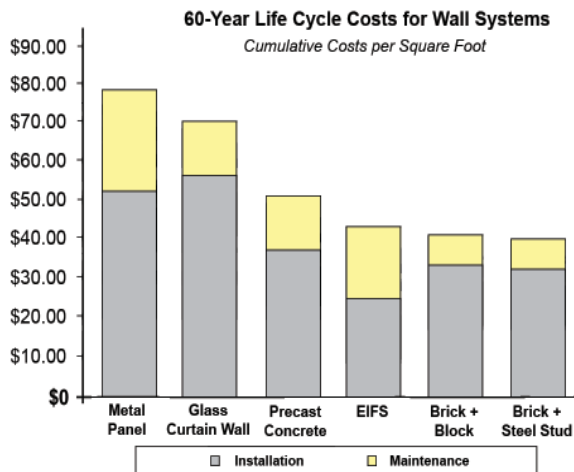
METAL PANELS

- Metal panels are fully recyclable.

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, the future of green building and sustainable design resides in the life cycle of the building, energy efficiency, and the impact building materials have at the end of their useful life.



BRICK IS A NATURALLY SUSTAINABLE MATERIAL

- ▶ Use of abundant natural resources, clay and shale.
- ▶ 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 buildings with high thermal mass.
- ▶ 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 BUILDING 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 building owner 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 research study

BRICK: THE GREEN POINTS ADD UP

LEED™ 2009 for New Construction and Major Renovations - Version 3.0 (USGBC)

Brick can assist in contributing up to **27 points** out of a possible 110 points

Green Globes™ New Construction (GBI)

Brick can assist in contributing up to **156 points** out of a possible 1,000 points

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



BRICK INDUSTRY ASSOCIATION

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