

METROBRICK®

Sustainability

Because METROBRICK absorptions are much less than full bed brick, spalling and efflorescence are reduced or eliminated. The building facade can basically last forever. With the thin brick attached to the wall system, minor repairs require only the removal of the affected bricks. Full bed brick building repairs are much more costly and difficult. Since thin brick is not a structural element and each brick is independently adhered to the wall, cracks don't form between bricks like in full bed brick.

Natural Resource Savings

- METROBRICK weighs at 20% of full bed brick
- METROBRICK uses 20% of the raw material - clay and shale - to produce.
- Only 20% of the trucking (as compared to full brick) is used to get the raw material from the mine to the factory.
- METROBRICK uses 20% of the amount of fuel (normally natural gas) to fire thin brick.
- Kiln emissions from thin brick are 20% of full bed brick.
- Delivery of finished thin brick can be done on any type of truck (Flat-bed, Box etc), allowing back hauls. Full bed brick delivery trucks are normally owned by the brick manufacturer and haul empty back to the brick plant.
- Trucks hauling full bed brick normally carry only 12,000 bricks. Trucks hauling thin brick typically haul over 60,000 bricks.
- Special cuts and sizes are available from METROBRICK thus saving shipping of full pieces that have to be cut at the job site and the excess discarded in landfills.

Site Disturbance

- No special or additional foundation is required for the structural support of METROBRICK.
- The weight of METROBRICK is engineered in the wall system. Full bed brick requires additional foundation for it's support, requiring additional steel and concrete.
- Post installation clean-up for thin brick is significantly less than full bed brick. Little or no cleaning agents are required at the jobsite when using thin brick.
- If thin brick is used in precast concrete or tilt-up construction, scaffolding is not needed for brick work. Panels can be erected from either outside or within the perimeter of the structure, thus allowing more existing trees to remain.

The METROBRICK Manufacturing Process

Ironrock , through it's METROBRICK brand, is proud to say we are doing our part to be good stewards of our environment in the following ways:

- All unfired clay is reground into our finished products.
- The heat from our kilns is also a heat source for our dryers.
- Our fired scrap is made available for use in making roadbeds as well as being reground and reused in our finished products.

From the Box... To the Form... To the Wall...

METROBRICK® AND LEED

The use of METROBRICK® products may contribute to the following LEED points and LEED certification.

Based on LEED Version 2009

Based on our review of LEED-NC Version 2009, we suggest that a LEED AP consider the following areas where thin brick may contribute to gaining LEED points.

1) MR Credit 5: Regional Materials: 1-2 points

Mined (as a by-product of coal strip mining) METROBRICK®'s raw materials are extracted from quarries that are located within 50 miles of our Canton, OH plant.

Canton, OH is located within 500 miles of all job sites/precast plants in a circle encompassing (starting North and working clockwise) All of Michigan; New York, NY; Norfolk, VA; Raleigh, NC; Nashville, TN; Champaign, IL; and Milwaukee, WI.

If a minimum of 10% of the product cost is derived from materials manufactured within 500 miles, then 1 LEED Point will be awarded.

If a minimum of 20% of the product cost is derived from materials manufactured within 500 miles, then 2 LEED Points will be awarded.

Given the job site is within 500 miles of Canton, OH; the thin brick material can be considered as a regional material. Given the precast plant is within 500 miles of the job site, the precast portion of the work can be considered as a regional material.

2) ID Credit 1 : Innovation in Design 1 – 5 Points.

The basis for quantifying the point(s) for thin brick is thin brick is 80% less material than full unit masonry (3 5/8" thick material compared to 5/8" material). The 80% environmental savings applies to the quantities of earth, water, natural gas and diesel fuel to extract, transport, process, manufacture, store, and deliver the finished product.

METROBRICK®'s thin brick is manufactured by the split tile method as compared to extruding and baking a full brick and cutting off the face.

METROBRICK® recommends that the LEED AP submit thin brick as an innovative material and ask to be awarded 1 to 5 points based on the amount of thin brick used on the project.

If the entire exterior skin is thin brick the LEED AP should ask for 5 points. The basis for being awarded 5 points is because thin brick affects 5 environmental categories to obtain the identical finished appearance as traditional masonry construction.

If thin brick is used as accent, then the LEED AP should ask for 1 point. Asking for one point as compared to 5 points (per i) above) is based on the % of the overall project affected by the thin brick.

METROBRICK® also recommends that the LEED AP ask to be awarded multiple points based on the number of different thin brick systems that are utilized on the building. For example, if thin brick is used in precast, the LEED AP should ask for 1 point. If thin brick is used in precast, cast in place, and as a field applied solution, the LEED AP should ask for 3 points.

The use of a wall / construction system using METROBRICK® thin brick may also help in the following LEED categories:

- Sustainable Sites
- Energy and Atmosphere
- Materials and Resources



08/09

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