

Glen-Gery clay bricks are

green

As America's Premier Brickmaker, Glen-Gery Brick has taken the lead in developing innovative and environmentally friendly cladding and landscape solutions. Glen-Gery is proud to provide products which support a sustainable environment. Our extensive offering of facebrick and paving brick can contribute to architects' and building owners' goals of achieving LEED certification of buildings. Many of Glen-Gery's clay bricks incorporate recycled content by way of reclaimed process wastes from other manufacturers' process streams and reclaimed materials from our own processes. Clay bricks save energy in many structures because of their relatively great mass and because of their use in energy-efficient wall systems.

Photo of Glen-Gery Reclamation Project – former York Site Quarry, now site of York Catholic High School.



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Beyond aiding LEED certification, our products contribute in many other ways which are important to a sustainable environment:

Low Life-cycle Costs

Glen-Gery clay bricks have a useful life measured in centuries, while other claddings must be replaced in a few decades. Glen-Gery clay bricks are virtually maintenance free. Per pound, over the expected life of Glen-Gery clay bricks, there is no more economical cladding. And, once the economic life of a building has passed, the clay bricks used to clad the structure have salvage value.

Reduced Energy Consumption

The greater mass of Glen-Gery clay masonry walls slows the transfer of summer heat into buildings. This greater mass also slows the winter loss of heat from buildings. Both of these reduced transfer rates lower peak energy loads and energy costs overall. Basic energy consumption is reduced because the r-value of clay brick is greater than many materials.

Low Annual Embodied Energy Costs

Yearly embodied energy costs of Glen-Gery clay bricks are very low because of the very long life of clay brick masonry walls and paving. Per pound, the energy required to manufacture clay brick is less than for many materials, including concrete.

Better Indoor Environment

Indoor environments constructed with Glen-Gery clay bricks are safer because clay bricks do not out-gas, do not leach dangerous chemicals, and are not a food source for molds. Because a clay masonry wall minimizes the amount of water in a wall, little water is available for mold growth on other materials. Indoor environments are safer because of the fire resistance of clay bricks. They are also quieter because Glen-Gery clay masonry walls are very effective sound barriers.

Aggressive Resource Management

At Glen-Gery, raw materials are carefully managed to extend the life of resources and reduce the energy needed to obtain raw materials. Use of waste materials from coal mining reduces the need for additional mining. Light-weight bricks, thin bricks, and bricks with larger core holes allow more square feet of cladding to be produced from the same amount of raw materials. Lighter products contain less embodied energy, cost less to ship, and reduce the transportation burden on the infrastructure.

Storm-water Management

Permeable pavements constructed with Glen-Gery clay pavers allow more water to penetrate the soil, recharging aquifers. Swales lined with salvaged clay bricks or brick bats slow the flow of storm-water, reducing erosion and limiting downstream pollution.

Acclaimed Environmental Stewardship

Glen-Gery has received awards for its environmental efforts and has been recognized by municipalities for its efforts in surface mine reclamation and sustainable plant operation. Over the years, Glen-Gery has reduced carbon dioxide emissions from its factories by almost a million pounds a year.

A Good Neighbor

Installation of air pollution control devices and development of more efficient factory operations mean that there is no smoke and there are no odors when Glen-Gery bricks are made, and hardly anyone notices that there is a brick factory nearby. Glen-Gery's recycling of almost all process wastes reduces the loads on water treatment plants, sewage treatment plants, and solid waste disposal facilities.

Production Energy Conservation

After ensuring the safety of our workers and producing the highest quality products, conserving energy is the number one goal of every Glen-Gery factory. More efficient production processes reduce the use of fuel and emissions by recycling heat. These more efficient processes extend the life of raw material

sources and limit the embodied energy in Glen-Gery clay bricks. Use of waste products such as sawdust for fuel reduce reliance on natural gas.

Design Innovation

Glen-Gery's thin bricks, light-weight bricks, and bricks with larger core holes reduce the load on a structural frame, allowing reductions in the sizes of the beams and columns that support a building. This reduction in the size of the building frame lowers the impact of construction upon the local, regional, and national environment, and often allows a smaller, more efficient structure.

An Eye to the Future:

- **Investigating alternative fuels:** Glen-Gery continues to explore the increased use of sawdust, liquid propane, and landfill methane as fuels to extend the life of resources.
- **Researching more efficient processes:** Designing products that use fewer resources is only half the quest for sustainability; devising processes that do the same thing with less energy is the other half.
- **Designing and testing building systems:** Glen-Gery is investigating single-wythe systems and light-weight clay masonry panels as a means of producing greener structures by reducing embodied energy and allowing structures to be lighter.

We can also help with specific Green Building Credits. Call our Green Team for more technical information.

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