BUILDING MATERIALS

Building materials are considered "green" if they reduce harm to the environment or human health, such as by improving energy efficiency, reducing the carbon footprint, or minimizing waste.

Here's a closer look at 10 popular sustainable building materials:



CERTIFIED LUMBER

Lumber produced or harvested sustainably

Economic benefit: Often costs no more than alternatives

Uses: Framing, decking, flooring, cabinetry, etc.

Environmental benefit: Renewable, reusable, forests provide habitat for wildlife

BAMBOO

Member of the grass family; can be alternative to timber

Economic benefit: Durable for being resistant to mold, mildew, insects

Uses: Flooring, fences, cabinetry

Environmental benefit: Renewable, performs as a carbon sink, needs few or no fertilizers and pesticides





NATURAL STONE

Used as building material since ancient times

Economic benefit: Durability makes it cost-effective over long term

> **Uses:** From countertops/ fireplaces indoors, to fencing/retaining walls outdoors

Environmental benefit: Nontoxic, promotes healthy indoor air, low embodied energy

CELLULOSE INSULATION

Composed primarily (up to 85%) of recycled newspapers

Economic benefit: Reduces drafts and heat/AC leaks

Uses: Standard insulating material for frame homes

Environmental benefit: Recycled, energy efficient, nontoxic





PLASTIC LUMBER

Alternative to traditional wood; resistant to rot/mold/mildew/ water/insect infestation

> Economic benefit: Virtually maintenance free

Uses: Decking, fencing, signage, retaining walls

Environmental benefit: Durable, recycled

STEEL STUDS

Provides exceptionally strong and stable framing for buildings

Economic benefit: Less material needed for structural integrity, fewer repairs, cheaper than wood

Uses: Commercial structures, popular choice for homes

Environmental benefit: Recyclable, low construction site waste





PERFORATED METAL

Panels come in variety of sizes, materials, thicknesses, colors, designs

Economic benefit: Lasts for generations, perforated sunscreens or building facades decrease cooling and lighting requirements

Uses: Sun shades, building facades, railing systems, garage screening, decorative cladding, etc.

Environmental benefit: Up to 100% recycled, recyclable and indefinitely renewable, can help reduce building's energy needs

PERMEABLE PAVEMENT

Lets water through, replenishing groundwater while reducing pooling, flooding and runoff

Economic benefit: Prevents water-related issues

Uses: Parking lots, sidewalks, driveways, patios

Environmental benefit:

Protects surface and groundwater quality





LIVING PLANTS

Roofs/walls covered with vegetation

Economic benefit: Natural insulation; can counteract sick building syndrome (increasing productivity)

> Uses: Homes, commercial and municipal buildings such as Chicago City Hall

Environmental benefit: Improves air quality, removes CO² from atmosphere, energy efficient

SOLAR CELLS

Convert sunlight into electricity

Economic benefit: Reduces energy costs over long term; financial incentives (such as tax credits) often offered

Uses: Solar lighting, fans, panels, etc., on residential/commercial/government buildings

Environmental benefit:

Produce emissions-free, clean energy



