

A Tighter House is a Greener House.

The U.S. Department of Energy calculates that air infiltration accounts for roughly half of all energy used in heating or cooling a home. Wind pressure and stack effect on buildings with air filtration problems can create pressure imbalances and lead to airborne humidity, corrosives and contaminants that can do untold damage to insulation, brickwork, cladding and decorative facings. According to the National Research Council of Canada, faulty air barriers can lead to uncomfortable indoor environments, high heating and air conditioning costs, and accelerated decay of building materials.

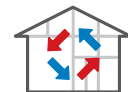
The advent of plastic housewrap technology has reduced the infiltration of outside air into the average home by as much as 50%, thus drastically reducing the energy required to heat or cool the home. Insulating plastic films have reduced greenhouse gas emissions in the U.S. by as much as 600 million tons of CO₂ since 1980. The energy saved by the use of housewrap surpasses the energy used to make the plastic product in less than two months after installation. The greenhouse gas emissions avoided due to reduced energy use surpass the emissions released in the manufacture of housewrap in three weeks or less.*

It's important that we invest in energy conservation now to ensure a safe and healthy environment in the future. Using less energy, building stronger more durable buildings, and continuing the effort to promote the use of new and innovative technologies will achieve both short and long term savings and improve the durability of our buildings. Plastics and their "green building" qualities make it possible.

*Franklin Associates 2000



Air infiltration occurs when gaps in walls allow cold air in and warm air out (winter) and hot air in and cool air out (summer).



This unwanted air flow creates drafts throughout the house that cause the heating and cooling system to work less efficiently to maintain the level of comfort.



Plastic housewrap seals the home tightly so the indoor climate can be more efficiently maintained using less energy.

What makes a "green building" green?



Energy-efficient materials and long-lasting construction that help conserve our natural resources.

Polyurethane insulation virtually seals a home or building, controlling unwanted air filtration—a problem that wastes up to 40% of every heating and cooling dollar.

A study by an internationally respected lifecycle analysis firm has shown that vinyl windows require three times less energy to manufacture than aluminum windows.

The energy efficiency of vinyl windows and glass doors means less electricity is used to heat and cool a home or building, reducing greenhouse gas emissions associated with coal-fired power plants.

The use of vinyl over alternatives in window frames saves the United States nearly 2 trillion BTUs of energy per year—enough to meet the yearly electrical needs of 20,000 single-family homes.

Expandable polystyrene (EPS) insulation creates a tough, rigid frame which greatly increases the structural integrity of the building.

According to the National Research Council of Canada, faulty air barriers can lead to uncomfortable indoor environments, high heating and air conditioning costs, and accelerated decay of building materials. Plastic housewrap reduces infiltration.

Pre- or post-use vinyl siding can be reprocessed into new vinyl products with little or no loss of properties.

Plastic pipe manufacturing is resource efficient, consuming less energy than alternative materials.

High-strength polycarbonate windows have lower thermal conductivity than glass reducing heating and cooling energy needs while providing shatter-resistance.

Plastic insulation expands to fill energy-wasting holes and gaps around electrical outlets and plumbing piping.

Vinyl roofing membranes are known as "reflective" roof surfaces, reflecting sunlight and radiant heat away from a building, helping the structure to stay cool while reducing energy use for air conditioning.

Vinyl flooring does not have to be replaced as often as many other types of flooring. This durability is a significant benefit for the environment because less energy and other resources are used to make and install new floors.

Vinyl siding is significantly lighter in weight than some alternative materials, such as brick or fiber cement, which saves energy and fuel in transportation.

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