

Au Contraire—Vinyl Windows ARE the Green Solution

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What is “GREEN”?

Using processes and products that are environmentally friendly to manufacture, install and utilize.

- Having a positive impact on the environment
- Improving human health
- Using carbon-neutral manufacturing processes



What is Green Building?

Designing and constructing homes and buildings that are healthier to be in, more energy- and resource-efficient and friendlier to the environment.



How Important is it to “Build Green?”

Consumers—and the nation—can maximize economic, social and environmental benefits:

- Improved air quality
- Reduced greenhouse gas emissions
- Conservation of natural resources
- Reduced manufacturing costs
- Increased national security



What Makes a Building Product Green?

- Energy efficiency
- Sustainability/lifespan of materials
- Manufacturing processes used in producing it
- Low negative impact on environment
- Lower manufacturing costs



What About Green Windows?

Which are green—and why?

- Aluminum
- Wood
- Vinyl
- Fiberglass
- Composite

Europeans have long recognized the environmental value of vinyl windows.



Green Vinyl Windows?

Lifecycle studies:

- Vinyl window frames require three times less energy to manufacture than aluminum window frames.
- The use of vinyl over alternatives in window frames saves the U.S. nearly 2 trillion BTUs of energy per year.



Why Vinyl Windows Are Green

Vinyl is a sustainable, environmentally friendly material:

- Lasts for decades
- Doesn't emit toxins
- Is recyclable
- Improves indoor air quality
- Is highly energy efficient

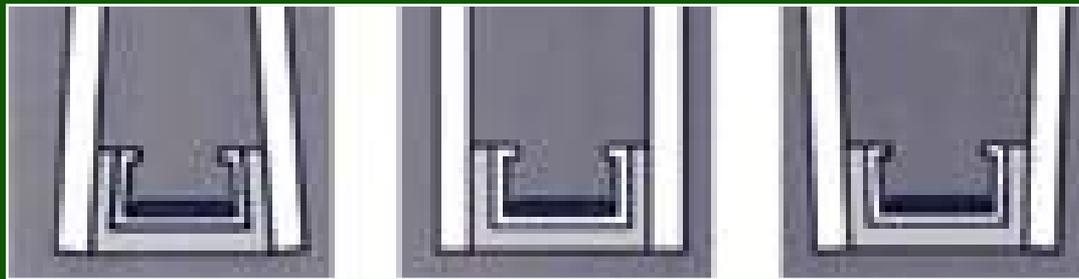


LIFETIME WARRANTY

Why Vinyl Windows Are Green

Technological advances leading to higher energy efficiency:

- High-performance Low-E
- Inert gases
- Highly effective spacer systems, e.g. PPG Intercept
- Improved weather stripping and components
- Dynamic window glazing applications



The Effects of Highly Energy-Efficient Vinyl Windows

- Air conditioners run less
- Heating systems run less
- Lesser demand for energy
- Reduced greenhouse gas and carbon emissions



Green Vinyl Windows are ENERGY STAR® Qualified.

- Independently tested to NFRC* standards
- ENERGY STAR labeled
- “Green” vinyl windows qualify in one or more climate zones

Climate Zone	U-Factor	Solar Heat Gain
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Northern	.35 or less	Any
North/Central	.40 or less	.55 or less
South/Central	.40 or less	.40 or less
Southern	.65 or less	.40 or less

* National Fenestration Ratings Council



- | | |
|------------------------------------|------------------------------------|
| Northern
Mostly Heating | South/Central
Heating & Cooling |
| North/Central
Heating & Cooling | Southern
Mostly Cooling |

Green Vinyl Windows— Healthier Living.

- Americans spend about 90 percent or more of their time indoors.*
- Indoor levels of pollutants are typically two to five times higher than outdoor levels.*

*U.S. Environmental Protection Agency's
Green Building Workgroup



Green Vinyl Windows— Healthier Living.

- Fewer indoor allergen agents—dust mites to mold to viruses and bacteria.
- Less condensation, helps prevent mold and other indoor allergens.



Green Vinyl Windows—Good for the Environment.

- Less energy used to heat and cool homes
- Reduced greenhouse gas emissions
- Need for dangerous paints, stains, strippers or thinners eliminated



Green Vinyl Windows Help Conserve Natural Resources.

- Principal raw material (nearly 60%) derived from salt
- Vinyl production 0.3 percent of annual oil/gas consumption
- Vinyl “recyclability”



Green Vinyl Windows— Extremely Durable.

- Often warranted for 25 years to life
- Wood windows break down faster—new energy consumption and trees required to replace



Green Vinyl Windows—Good for the Environment.

Lifecycle analyses show:

- Importance of use phase
- Vinyl provides excellent lifecycle benefits
- Lighter footprint on the environment



Economic Benefits of Green Vinyl Windows.

- Power plants burn less fossil fuels
- Carbon-neutral manufacturing
- Positive impact by reducing long-term global warming



Green Vinyl Windows—Lower Manufacturing Costs.

- Relatively little energy required in manufacturing.*
- More than 40 million barrels of oil per year saved.**
- Low embodied energy.
- Positive economic impact.

*American Architectural Manufacturers Association

**Vinyl Institute



Green Vinyl Windows—Less Dependence on Foreign Energy.

- Decreased dependence on foreign oil
- Increased American energy security
- Stronger economy



Making America the World's Green Power

- Create, expand and shape green markets
- Stronger economy
- USA will emerge as the Green Power
- Rest of world will follow



Green Vinyl Windows—The Future of the Building Industry.

- Energy Efficiency
- Durability/Sustainability
- Environmental Protection
- Economic Growth
- And so much more!



Thank You.
Any questions?