

Going Green A Cool Trend

Today there are numerous energy efficient products to fit your lifestyle, and numerous benefits from lifestyles that are 'going green'.



Going Green

A Cool Trend

With all the buzz concerning global warming and high energy bills, it is no wonder that manufacturers are constantly creating new products that can save consumers money and help protect the environment. The increasing focus on such issues has sparked a surge in energy saving products, many applying to homeowners who are building or remodeling their homes.

This will focus on numerous energy efficient products to fit your lifestyle, and how you can benefit from 'going green'.

Why Go Green?

Choosing environmentally friendly products can save you hundreds of dollars a year in energy costs. Such products can also improve the comfort in your home by maintaining a pleasant temperature throughout the year. Even better, going green is much easier than you may think because energy efficient products are clearly labeled. Certain energy efficient products have a longer life-span than non-energy efficient products, and can even protect valuables in your home from sun damage. Opting to use these products can increase your home's resale value and reward you with tax credit rebates.

Don't forget that besides saving you money, 'going green' protects the environment. The media is rich with statistics about our unhealthy use of energy and it is time to take action. Knowing you are helping, even if in a small way, will no doubt give you some peace of mind.

Let's get started!

ENERGY STAR is a United States government program that strives to protect the environment and reduce the country's use of energy. Specifically, it tries to cut energy consumption and greenhouse gas emissions by plants power. ENERGY STAR was created in 1992 by the United States Environmental Protection Agency and has been growing ever since.

ENERGY STAR awards a product with its label when the product meets criteria based on energy efficiency and overall quality. Since its creation, ENERGY STAR has saved consumers hundreds of billions of dollars on energy costs, and has labels on products in over 40 categories. These categories include siding, roofing, insulation and window materials.

As more people and businesses use products with the ENERGY STAR label, the possible outcomes are great. If all consumers in the United States chose ENERGY STAR products, whether private residents or business owners, national energy consumption would be reduced by about 200 billion dollars in the next ten years. This would be a tremendous reduction in pollution and overall environmental problems.

How do Energy Efficient Roofing Products Work?

With Americans spending more money on energy bills than ever, now is the perfect time to invest in roofing products to save money on heating and cooling bills. There are several ways in which roofing products can increase energy efficiency.

Some of these methods include:

- The use of special coatings to prevent roof damage from ultraviolet radiation.
- Using special pigments to reduce penetration of infrared radiation.
- Preventing temperature fluctuations from shortening a roof's life-span.
- Reflecting sun rays away from your home.



Types of Energy Efficient Roofs

ENERGY STAR roofing products are a popular choice for homeowners who want to decrease their energy bills. These roofs reflect sunrays away from your home lowering the temperature of your roof. By reducing your roof's temperature, your home will stay cooler in the summer reducing the need for air conditioning. This will result in lower energy bills while keeping your home comfortable.

Cool Roof Coatings can be applied to both low-sloped and steep-sloped roofs. The coatings have a consistency of thick paint and are applied over existing roofs to save energy and extend longevity. These coatings protect a roof against damage from the weather and ultraviolet radiation by reflecting sunrays away from your home.

Cool roofs have high thermal-emitting properties, which refers to the relative ease with which the roof radiates away heat. This means that a cool roof will not only stay cooler by reflecting the sun's energy rather than absorbing it, but it will also quickly release the heat that it does absorb.

Green Roofs are an interesting energy efficient roofing option — it is like having a garden on your roof! The vegetation works to reduce the temperature of your roof so that it is cooler than the air temperature in the summer. Roofing that is not energy efficient can be up to 90 degrees hotter than air temperature. With a green roof, your home will remain cooler, decreasing your air conditioning needs and lowering your energy bills.

Green roofs have a bottom waterproof layer covered by soil, vegetation and possibly an irrigation system. Another benefit of the vegetation is to provide your roof with shade from the sun. A steady temperature prevents the roof from expanding and contracting, increasing the roof's life-span.

Metal Roofs reflect solar energy, allowing the roof surface to remain cooler. This prevents heat from transferring into the building, which means less work for air conditioning units.

Metal roofs last much longer than most non-metal roofing products promoting a lifetime of environmentally-sound, maintenance-free durability and beauty.

Energy Efficient Roofing Wrap-Up


What you can expect from energy efficient roofing products:

- Lowering the temperature of the roof's surface by reflecting sun rays keeps more heat from entering a home. This can reduce air conditioning needs up to 15 percent.
- By maintaining a steadier temperature than other roofing products, energy efficient roofing materials are more durable and have a longer life-span.
- Certain coatings can block your home from harmful ultraviolet radiation, in the same way sunscreen protects you, keeping your home cooler in the summer.

Energy Efficient Windows

Similar to roofing materials, windows have the ability to significantly lower your energy bills. Non-energy efficient windows can cause unwanted drafts, loss of heat and condensation that can damage window sills. In contrast, energy efficient windows maintain a pleasant inside temperature.

WHAT MAKES A WINDOW ENERGY EFFICIENT?



CHANGE FOR THE
BETTER WITH
ENERGY STAR

Today, manufacturers use an array of [advanced technologies](#) to make ENERGY STAR-qualified windows.

IMPROVED FRAME MATERIALS

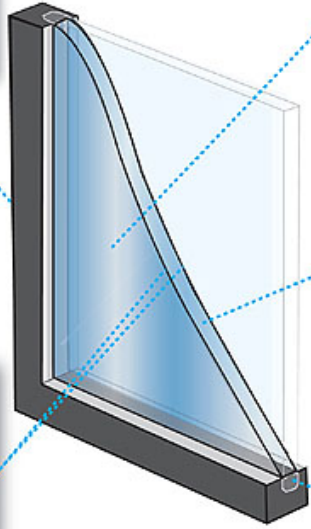
Wood composites, vinyl, and fiberglass frames reduce heat transfer and help insulate better.

LOW-E GLASS

Special coatings reflect infrared light, keeping heat inside in winter and outside in summer. They also reflect damaging ultraviolet light, which helps protect interior furnishings from fading.

GAS FILLS

Some energy-efficient windows have argon, krypton, or other gases between the panes. These odorless, colorless, non-toxic gases insulate better than regular air.



MULTIPLE PANES

Two panes of glass, with an air or gas-filled space in the middle, insulate much better than a single pane of glass. Some ENERGY STAR-qualified windows include three or more panes for even greater energy efficiency, increased impact resistance, and sound insulation.

WARM EDGE SPACERS

A spacer keeps a window's glass panes the correct distance apart. Today's warm edge spacers—made of steel, foam, fiberglass, or vinyl—reduce heat flow and prevent condensation.

Image Source: energystar.gov

They also prevent fading and protect valuable items from sun damage through the use of Low-E coatings.

ENERGY STAR labeled products allow less heat to enter your home. They protect your home from the sun while not blocking visible sunlight.

When looking for energy efficient windows, pay attention to the windows “R” rating. This rating refers to the products resistance to heat loss and gain during the colder and warmer parts of the year. A higher “R” rating means that a window has greater insulation. The higher the rating, the more the material blocks out ultraviolet rays.

The Importance of Sealing and Insulation

Sealing and insulation encase the entire exterior of your home. The right sealing and insulation will also improve the energy efficiency of other structures such as roofing and windows. Signs of faulty sealing and/or insulation include air drafts, heat gain in the summer and heat loss in the winter. Although the subject of sealing and insulation may not sound overly exciting, its benefits will more than pay off in the long run.

Making Sure Your Home’s Sealing and Insulation Are Energy Efficient

Improper sealing and insulation can significantly raise your energy bills and make your home uncomfortable.

Sealing your home should be done before insulation to provide the best energy efficiency. In order to have sealing that will regulate temperature and lower energy bills, you must make sure to find and seal all the places where air can leak in or out. Certain parts of your home can have leaks that are difficult to find and seal – for this, we recommend that you hire a professional. Well-sealed homes also have less mold and dust, which leads to better air quality.

Insulation is what keeps your home’s inside temperature protected from the outside climate. It keeps your home warm in the winter and cool in the summer. There are several products used for insulation with the ENERGY STAR label which include fiberglass, rigid foam board and spray foam. The quality of insulation is based on an R-value, which is its ability to resist heat flow. The higher the value, the better the insulation’s quality.

Simple Ways to Make Your Home Energy Efficient (and save money!)

There are many choices you can make that can improve your home's energy efficiency. Here are just a few:

- Insulate your water heater.
- Use heat-generating appliances, such as washers and dryers in the cooler hours of the day or night.
- Plant trees and shrubs around your home. They protect your home from heat in the summer.
- Check the insulation in your attic and garage.
- Be responsible with your water use; install an efficient showerhead.
- Turn off and unplug anything you aren't currently using, including the television, lights, computer, etc.



The Reality of Going Green

Myth: Building an energy efficient home is too expensive.

Reality: There are many affordable ways to make your home energy efficient. Even though an energy efficient product or material may be a bit more expensive upfront, if it saves you money on energy bills, it will easily pay for itself in the end.

Myth: An energy efficient home is solely based on choosing the right home improvement materials.

Reality: Being energy efficient is also based on using your appliances efficiently and maintaining their performance. You control the temperature on your thermostat or the amount of water you use, no matter what home improvement materials you are using.

Myth: Energy efficient products don't work as well as other products.

Reality: Energy efficient products work just as well, sometimes even better, than traditional products. Products with the ENERGY STAR label are evaluated for both their ability to save energy and their overall performance and quality.

Myth: Energy efficient products are hard to find.

Reality: Now more than ever, these products are widely available and easy to identify. When in doubt, look for the ENERGY STAR label when choosing home improvement products.

Myth: 'Going green' is an all-or-nothing decision.

Reality: You don't have to buy a windmill or live by solar power to 'go green'. Slowly integrating energy efficient products into your home is a good start, and can be efficient even when mixed with traditional products. A few small changes can easily add up, saving you energy and money.

'Going green' can be fun, easy, rewarding and exciting – all at the same time!



Call 703-560-7663 to see how we can assist you with your next home improvement project.