

Many Benefits of Vinyl Fencing

by Stephanie Aurora Lewis, RA, LEED

It is becoming more and more difficult for the average homeowner to differentiate between a vinyl fence and composites or even wood fences. By far, manufacturers all agree the newest trend in vinyl fencing is to create what John Polidan, President and CEO of Enduris says, "A more natural, wood-grained product."



Individuality, an alternative to the standard white fence, and an opportunity for manufacturers to upsell are several reasons why the lightly colored and textured vinyl fencing is gaining popularity. "Not everyone wants a yard that looks like their neighbors'," says Polidan. Paul German of Country Estate says that, "embossed wood grains give the customer a fresh look. The fence company has an opportunity to upsell wood grains, which adds margin to the project if done correctly."

Vinyl's advantages

Vinyl was invented just after World War II, but it wasn't until the mid-1970s that vinyl fencing was introduced. Rex German owned a company that produced PVC piping for underground irrigation systems in Central Nebraska. In 1977, Rex German decided to use the PVC technology to build an equine fence in his backyard as an experiment.

"I was in sixth grade when I helped my father install the first vinyl fence," says Paul German, Vice President of Country Estate of Nebraska Plastics. Fifteen years later, another portion of the vinyl fencing was installed. "One cannot tell the difference between the fencing installed 30 years ago versus the fencing installed 15 years later," Paul German asserts.

Vinyl fence manufacturers purchase vinyl resins as raw material. Once the resin reaches the vinyl fencing manufacturers, it is then used to make the fencing by either the mono-extrusion or the co-extrusion process. The co-extrusion process saves material costs because only the outer layer of fence is made of a UV resistant vinyl. Mono-extruded vinyl fence has the potential to show less wear because of its thicker exterior material.

Vinyl's most desirable characteristics are its durability and its low maintenance. It does not twist, split or warp. Homeowners love the fact that they do not have to paint, stain or seal it – ever. Today's materials are so durable, in fact, that many manufacturers are able to offer substantial warranties on their products. This is a terrific bonus for

homeowners who have less time for maintenance, and more appreciation for the value a handsome fence adds to their property.

With regard to eco-friendliness, used vinyl materials are either recycled into the inner layer of some manufacturers' co-extrusion products or are incinerated. "Not much vinyl ends up in the waste stream. The small amount that does is either landfilled where it is harmless to the environment because it is inert, or it's incinerated through a highly efficient combustion process that destroys all particles of the material, preventing any pollution," says Dr. Patrick Moore, chairman and chief scientist of Greenspirit Strategies of Vancouver, Canada. If life-cycling is taken into consideration, vinyl meets some of the highest standards. Many sustainability concepts are based on the durability of a product versus any other qualities.

Although originally known for its bright white appearance, today's vinyl fencing is available in a number of popular exterior colors to coordinate with today's homes.

There are other material qualities that make vinyl a green building material of choice. Vinyl fencing is inert, "There is no leaching and no vapors from vinyl fencing into the environment," says German. Vinyl is also non-burnable, "When the source of fire is removed, it no longer burns," says Dr. Moore. Vinyl resists mold and mildew.

Countering environmental concerns

Some critics of vinyl products express concern about the presence of phthalates, a so-called "plasticizer" which is used to make vinyl more flexible. However, vinyl used in architectural applications is always considered to be more on the rigid side and therefore does not contain phthalates. Lead, another environmental concern, is banned from use in vinyl products made in North America.



On the plus side, manufacturing vinyl products is energy efficient. Among plastics, vinyl takes the least amount of energy to produce. "Vinyl is composed of 51% chlorine derived from salt and 49% hydrocarbons derived from natural gas. Most other plastics are one hundred percent hydrocarbons," says Moore. Aluminum products take up to three times more energy to manufacture compared to vinyl.

Like many other materials, recycling vinyl is not yet a mainstream practice. One reason is that a vast majority of the vinyl produced is still in use. At a minimum, all vinyl fencing manufacturers recycle their own in-factory scraps.

Only a few manufacturers accept recycled vinyl source from used vinyl. "We do not purchase outside recycled scrap because we do not know the chemical makeup of what is submitted to us. We have extremely high standards and guarantee quality. So, because vinyl can vary greatly with types and amounts of modifiers, plasticizers, and stabilizers, we need to limit foreign used vinyl in order to assure customers that our products meet our standards," says Paul German. Another concern is that materials may not be cleaned well enough when they reach the manufacturer. "We want to make sure that chunks of cement do not end up in the extruder," says Polidan.

On the other hand, a number of manufacturers use foreign scrap recycled material for the interior cross section of a co extruded product. These manufacturers test their finished product to make sure the plasticizers, modifiers, and stabilizers compositions are within acceptable ranges.

Installation

Vinyl is not susceptible to climatic wear and tear, making it the material of choice for many challenging geographic regions, including seaside locations with salt-water exposure. Several manufacturers have specially designed product lines that can withstand extreme lateral forces, such as those caused by hurricane strength winds. "Even an area prone to termite damage is one appropriate for a vinyl fence," says German.

Vinyl's signature installation location and use is as an equine fence. Post and rail vinyl equine fence saves horse owners money and time, and prolongs the health of their horses. "Wood fencing requires so much maintenance that full-time crews are often hired to upkeep the brisk white quality of an equine fencing run," says Paul German, "It [vinyl] is a safe product for horses because they cannot chew it apart as they do wood fencing and they will not become severely injured if they run through it."

Vinyl fencing's advantages are numerous, including durability, low-maintenance, recyclability and versatility.



Marketing vinyl in a challenging economy

All building manufacturers suffer the same economic difficulties. "This economy is hitting all of us pretty hard," says Polidan. Nevertheless, choosing to better enhance customer service and ensuring the highest quality products are important in today's marketplace. But perhaps the greatest opportunity comes from the growing value homeowners place on their exterior spaces. They recognize that fences – like decks, patios and gazebos – add significantly to the value of their homes and the quality of their lifestyle. If the family can't afford to vacation as it once did, they can certainly enjoy their own back yard more. And a durable, low-maintenance fence that offers privacy and/or security is often key.

"We have noticed that more and more people are spending time improving their homes rather than going on vacation," says Deron Manwaring, National Sales and Marketing Manager for Royal Outdoor Products. The company has introduced Triple Crown Signature Series privacy fence designed for swimming pools. A vinyl fence for the protection of a swimming pool environment is an excellent solution because vinyl can withstand exposure to the pool water and chemicals.

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