

# The Gold of the Flooring Industry: Vinyl

Learn the facts about vinyl and see how it compares to other flooring options

Vinyl (also called PVC) is composed of two simple and natural building blocks: common salt, an abundant natural resource, and ethylene, from natural gas. Vinyl can be made flexible, rigid, or semi-liquid; clear or colorful; thick or thin - making it one of the world's most versatile plastic materials. In essence, vinyl is to the flooring industry as gold is to a chemist. You can bend it, beat it, pound it, and smash it, and it will always retain its properties and never lose its integrity or performance characteristics. It's readily recyclable, and 100 percent can be recycled during and after manufacturing.

Vinyl blends many attributes of traditional materials with advanced performance characteristics. Durability, light weight, hygienic, versatility, and low maintenance requirements are just a few of the properties that have propelled the wide use of vinyl in buildings across the country.

## Environmental Impact

The environmental impact of any vinyl should not be judged by itself, as the use of alternative products may actually do more harm than good. Alternatives to vinyl products, for example, may require more energy to manufacture and use considerably more fossil fuels, thus increasing emissions. Vinyl flooring, for example, results in approximately one-half of the typical energy costs in the manufacturing process. Furthermore, the green characteristics of vinyl flooring are better than some natural flooring alternatives for a number of reasons. Transportation, logistics, harvesting, replenishment, the lack of governmental restrictions in some countries, along with manufacturing energy consumption, can contribute to more energy use with natural flooring, which equals more carbon emissions. There are products on the market today that claim to be green or natural, but have little or no natural materials; it's important not to judge a book by its cover.

## Why Choose Vinyl?

In terms of hygiene, vinyl flooring is naturally waterproof and can be heat-welded to form a continuous, nonporous surface that inhibits the growth of micro-organisms, bacteria, fungus, mold, and mildew. In fact, vinyl flooring deters the growth of harmful bacteria such as MRSA.

Top reasons for selecting vinyl flooring include the array of designs available and the cost effectiveness when it comes to the overall production, manufacturing, and installation of a vinyl floorcovering. Vinyl also does well in life-cycle analysis (LCA) of the in-use phase due to its long lifespan. A 2004 study of environmental LCAs of vinyl and competing building materials by the European Commission (EC) found that vinyl offers environmental benefits equal to or better than those of other materials in many applications. Additionally, some vinyl flooring manufacturers have eliminated the need for costly chemical cleaning agents, sealants, and polishes through protective floor treatments.



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## Vinyl Myths & Facts

**Myth:** *The manufacturing process for vinyl flooring poses serious health and environmental risks.*

**Fact:** The vinyl flooring manufacturing process utilizes vinyl resin, an inert, nonhazardous material. Manufacturers of vinyl flooring must comply with extensive regulatory requirements to protect the environment and workers.

**Myth:** *Natural materials such as wood, linoleum, and ceramic are more environmentally friendly than vinyl.*

**Fact:** Salt, the primary ingredient in vinyl flooring, is a naturally occurring compound in abundant supply. Vinyl flooring outperforms linoleum and ceramic tile in environmental impact measures during whole life-cycle and doesn't have to be replaced as often as other types of flooring, thereby reducing energy consumption.

**Myth:** *Vinyl (PVC) is bad for your health.*

**Fact:** There are vinyl products available that contain no hazardous emissions (mercury, formaldehyde, DEHP, or other chemicals that are classified as carcinogenic, mutagenic, or reprotoxic [CMR]).

Though vinyl remains a popular choice with building owners and facility managers, common myths still remain (check out the sidebar below). When examining the benefits of any floorcovering, consider important aspects such as cost, environmental impact, hygiene, maintenance, and durability. In doing so, the advantages of vinyl floorcovering can help you determine the best course of action in the design or construction of an aesthetically pleasing, environmentally conscious space.

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