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#### HOW-TO

# THE DIFFERENCE BETWEEN VINYL AND ALUMINUM WINDOWS AND DOORS

Knowing the differences between vinyl and aluminum windows and doors can help you decide which material is best for your home.

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Knowing the difference between the <u>materials</u> used to make windows and doors can help you make a more informed decision when you are ready to make a purchase. What are the differences between vinyl and aluminum? Which one is stronger and performs better in the elements? Which one is less expensive? These are all important considerations when investing in new windows and doors.





## What is Aluminum?

<u>Aluminum</u> is a strong, durable metal material that's well suited for creating low-maintenance, long-lasting windows and doors. While there are many kinds of aluminum, Marvin only uses extruded aluminum in its products. Extruded aluminum is much thicker than standard roll-form aluminum. The added strength and durability of extruded aluminum benefits the overall performance of windows and doors.

Three Marvin product lines feature extruded aluminum: Marvin <u>Ultimate</u> (wood interior with the option of either wood or aluminum-clad—also known as aluminum-covered—exterior), Marvin <u>Coastline</u> (extruded aluminum interior and exterior), and Marvin <u>Modern</u> (low-gloss extruded aluminum interior and high-density fiberglass exterior).

## What is Vinyl?

Windows made from vinyl (usually PVC) are less costly, low-maintenance. Because dark exteriors can soften or sag from heat or direct sunlight, most vinyl windows are white or buff, so the color selection is limited, though some manufacturers do offer dark colors with heat reflective paint products. They can also become brittle in very cold temperatures.





Photo courtesy Andrea Rugg

# What is the difference between vinyl and aluminum?

Most plastic, vinyl, and vinyl-based composites are made using thermoplastic materials. Thermoplastic materials are polymers that can be softened through heating before being processed and then left to cool and harden. Once cooled, they show no changes in chemical properties, meaning they can be re-melted and re-used several times. When exposed to the sun, thermoplastic materials begin to soften. That means products made from these materials (like windows and doors) begin to misfit their openings, particularly in hot climates, making them difficult to open and close. It can also cause seals to become compromised.

The two materials differ in appearance as well. Vinyl windows may appear more like a "standard" window, while aluminum windows offer more design flexibility and customization options, creating a more personalized, premium aesthetic.

In terms of longevity, aluminum products outlast vinyl products simply because aluminum is a superior, stronger material. Vinyl is more likely to break down over time, as it can become brittle or compromised when exposed to extreme temperature shifts. Aluminum windows and doors can also be recycled and reused, making them better for the environment.

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