

Wall-to-wallcoverage

Everything you need to know about siding your home.

By **Jon Gorey** | GLOBE CORRESPONDENT

Our homes wear siding like a winter coat, bundled up in cedar-check plaids or vinyl stripes to withstand the weather. And when that overcoat is looking tattered — whether your home is clad in 100-year-old painted pine shingles, 60-year-old asbestos-cement tiles, 50-year-old aluminum, or 30-year-old vinyl — you might entertain the idea of replacing it with new siding.

It's a tough choice, because unlike a roof — which, when it fails, needs to be replaced pronto — “siding is more of a want than a need,” said John MacDonald, general manager of REI Roofing & Siding in Holbrook. And as wants go, it's not a cheap one: The average cost to replace 1,250 square feet of vinyl siding in the Boston area is \$24,626, according to Remodeling Magazine's 2022 Cost vs. Value Report.

But few other home improvements have such a dramatic, immediate impact on curb appeal. Homeowners can expect to recoup about 80 percent of a vinyl siding project's cost at resale, according to the same report, making it one of the most financially rewarding improvements.

It's also one of the most confounding, because there are so many options. And as the first impression your home makes on visitors, siding is a high-stakes decision — one that, with any luck, will last for several decades. So here's what to know before choosing a spiffy new look for your home.

Wood siding

In the modern marketplace, residential siding options can be simplified into two main categories, said Joseph Danz, president of Boston Exterior Remodeling in West Roxbury. “There's synthetic siding, and there's real wood siding.” Houses have worn many species of wood over the years, but the two main types of wood siding are red and white cedar, both of which are naturally rot-resistant due to the fragrant tannic acids found in their heartwood.

Red cedar, which grows out West, is a taller tree with a denser grain, so it can be used for larger shingles, clapboards (those long, horizontal strips), and shakes (similar to shingles, but with a thicker and rougher cut that gives them more texture and heft). Eastern white cedar, grown in places like Nova Scotia and Maine, is a smaller species used mostly for shingles — like the ones you see on Nantucket.

Cedar is the most sustainable siding material out there, said Phil Kaplan, principal at Kaplan Thompson Architects in Portland, Maine, and co-host of the Green Architect's Lounge podcast — at least if it was harvested responsibly. He recommends asking for wood certified by the Forest Stewardship Council. “More people should really start looking at FSC lumber,” he said. “The price premium is not as great as it used to be.” Because Eastern white cedar is grown nearby, it has the least embodied carbon — that is, the emissions resulting from its harvest, production, and transport to the job site — of any siding.

Cedar can come pre-stained or pre-treated with oils to extend its lifespan (if staining or painting, make sure to coat all sides of a shingle or clapboard before installation for maximum durability). But even left untreated, cedar is durable. “Cedar shingles will last for 20, 25 years on the wall if they’re untreated,” MacDonald said. “If they’re treated, you’ll get even longer out of them.” Red cedar tends to darken as it ages, while white cedar generally fades to gray.

The main drawback? Cedar siding is expensive, especially at the moment. Between COVID shutdowns and supply chain issues, MacDonald said it’s gotten pricier or even impossible to procure the material needed to side an entire home in cedar. “Lumber yards have had a really difficult time getting that at a good price, so it’s not something you can really quote these days,” he said. “Because a lumberyard will only sell you — if they even have it — a limited amount, typically not enough to do a whole home.”

There are a handful of newer and niche wood siding options, too, including some that rely on natural treatments to extend their lifespan. Acetylated wood, for example, is treated with acetic anhydride (a much stronger relative of vinegar), and torrefied wood is basically baked at very high temperatures to strip it of its energy, making it less susceptible to pests and mold. “These effectively wood-based products are much more durable; they don’t rot,” Kaplan said.

Synthetic siding

When it comes to rot resistance, though, vinyl and other low-maintenance, non-natural materials have won favor with homebuilders and homeowners. In 2020, 72 percent of the new homes built in New England were sided with vinyl, according to census survey data, compared with 16 percent clad in the runner-up, wood.

And while traditional vinyl siding — the ubiquitous double-rowed panels of 4-inch clapboards, seams and all — is the most affordable siding option, “there are little tricks of the trade to really make vinyl look not like vinyl,” Danz said, such as taking care to put on authentic window trims. “This is not the days where Sears used to walk around the neighborhood and sell you thin vinyl siding that only came in three colors.”

If a homeowner can afford the upgrade, Danz likes to use a product called Grayne: a cedar-look synthetic siding made from PVC. “It looks like individual cedar shingles, but it comes in a panel,” he said. “The other nice thing about it is it has 2 percent waste and a Class A fire rating — that’s unheard of.”

As a vinyl upgrade, MacDonald is a fan of CertainTeed Cedar Impressions, which are made of PVC and come in a variety of textures, sizes, and colors. However, the complicated installation increases labor costs and waste. “It’s a very specific cut and nailing pattern, so instead of the 10 percent waste factor you have with wood siding or fiber cement or vinyl clapboard, it’s more like a 20 percent waste factor,” he said, especially when installed on an old Victorian with nooks and crannies or varied windows. “The labor is double the cost [of standard vinyl siding], and then to purchase the material is almost four times the cost,” he said.

Other composite siding options include TruExterior, made from polymer and fly ash (a byproduct of coal combustion); Everlast, which is about 80 percent PVC-based resin mixed with inorganic materials (such as crushed stone or fly ash) and long-lasting acrylic colorant; and SmartSide, made from strands of wood treated with zinc borate and bound with wax and a non-PVC resin.

From a practical standpoint, another reason Danz likes Grayne is that it’s easy to remove if a homeowner wants to put on a deck or addition later. “Everlast is a beautiful product, but it has

this locking mechanism where they stack on top of each other, so you can't take off a panel mid-wall," he said.

Another composite material, fiber-cement siding, has grown hugely popular in the past two decades. It typically contains cellulose, cement, and either sand or fly ash. That makes the product durable if installed correctly, but also heavy and difficult for contractors to work with. Fiber cement isn't vulnerable to insects, fire, or rot — and while it requires less maintenance than wood, it does sometimes call for a new coat of paint, which it holds well.

Some fiber-cement boards contain silica dust, however, which can be harmful to installers when they cut it to size. And homeowners have had mixed results with the product; CertainTeed paid out over \$100 million to settle a class action lawsuit alleging its fiber-cement siding warped and cracked prematurely.

"We don't touch fiber-cement siding," MacDonald said. "It draws a lot of dust, the product breaks easily — so at REI we just choose not to use that product."

"In middle America, it seems to be okay, but in New England, it just gets eaten alive," Danz agreed. "I've taken off more cement board than I've ever put on."

"Not all fiber cement is the same," countered Andrew Bella, director of sales/Northeast region for James Hardie, perhaps the best known producer of fiber-cement products in New England.

"Hardie fiber-cement products have been specifically engineered for climate to stand up to harsh New England weather, resisting damage from water, pests, rot, high winds, temperature extremes, hail, and even fire."

It's what's underneath that counts

For all the attention paid to siding, it's the stuff underneath that really does the hard work of protecting your home from the elements. "All siding is sacrificial to some extent," Kaplan said. "The siding, in and of itself, is not the thing that keeps the water out."

That job falls on a weather barrier, such as a Tyvec or Tytar home wrap, or a peel-and-stick membrane such as Vycor or BlueSkin, that's applied over the sheathing (the boards or plywood that comprise your exterior walls). "[The siding] effectively protects the water barrier from direct exposure to the sun and rain in order to keep that water barrier in good shape," Kaplan said.

That's one reason Danz always strips off old siding instead of installing new material directly over the old. "You're only as good as what you're nailing something to when you do those go-overs," Danz said, and the old siding could be hiding rotten sheathing or other problems. "We only have one formula, where we strip everything down, fix the rot, add Vycor." (Danz prefers Vycor to BlueSkin because it's more transparent, so he can see what's behind the membrane. But both products are a step up from regular house wrap, providing air sealing in addition to water resistance.)

In cedar applications, in particular, there's one last important undergarment: a rain screen. Whether it's a mesh layer that sits behind the shingles, or a series of thin strapping boards that create an air channel behind the clapboards, it's crucial to allow the siding to drain and dry out.

"It basically creates a gap between the siding and the water-resistant barrier that allows airflow to get behind there, so you don't have siding pushing directly against sheathing, where it has a tendency to rot if it gets wet," Kaplan said. And the openings at the top and bottom should have actual screens on them, to keep bugs out.

Time to accessorize

Anyone who's bought a new coat knows it's a good occasion to pick up a matching hat or scarf, if there's room in the budget. Similarly, there are other home projects that dovetail well with new siding.

If you're looking to upgrade windows, for example, without resorting to replacement windows (which add a frame within the existing frame, cheating you out of precious daylight), a siding project is the opportune time to do it. It's also a great time to get insulation blown into your walls, something most Massachusetts residents can get done at a steep discount through Mass Save. "The best insulation you can have is always the stuff that goes in your walls," Danz said.

After all, in New England, it doesn't really matter how nice your new coat looks if it doesn't keep you warm and dry on a chilly January night.

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