

# MYTHBUSTERS



**"They say it costs less than brick."**

Don't be fooled: Fiber cement manufacturers never include the lifetime costs of maintenance for painting and joint replacement—costs not associated with brick.

**"Fiber cement siding has a 50-year warranty."**

First, ask yourself why they need to play that up. Second, most warranties cover only partial replacement cost of the material, not installation.

**"I can paint it any color I want."**

Sure, but you can get a huge variety of colors and blends with brick, too! You can even select two or more colors for architectural features like quoins or banding, and you can select colored mortars as well.

**"It uses recycled material, which appeals to me."**

Brick does, too! Manufacturers often use recycled materials when they produce brick. Brick is a durable material with a long-lasting, natural appearance and a proven track record.



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# THE FACTS: BRICK VS. FIBER CEMENT SIDING

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## THE FAUX WOOD ALTERNATIVE: FIBER CEMENT

It's relatively new. It's full of seams. And you don't want rain getting in the cracks. Fiber cement siding gained market share in the mid-1990's. Made from cement, sand and wood pulp, fiber cement siding caught on as an alternative to wood cladding. And for good reason. This simulated wood siding gave builders new flexibility—it offers several options for texture, thickness and shapes that convincingly mimic traditional wood lap siding. Manufacturers also produce fiber cement "wood" shingles and panels.

At first glance, installation resembles wood lap siding but with some crucial differences with regard to nailing, plank spacing and moisture protection. Sawing and sanding require dust control protection (breathing in silica dust is a bad idea). To control the dust, builders wet cut the boards.

Heavier and more brittle than wood siding, fiber cement siding is more unwieldy than wood. The boards come in maximum lengths of 12 to 14 feet. At doors, windows and corners, the end boards must be caulked or otherwise sealed against water intrusion. Manufacturers recommend inspecting for and fixing broken seals, if necessary, every year (not a task every homeowner wants to take on).

Most sidings arrive primed from the factory. Unprimed siding should be cleaned, thoroughly dried and primed. Paint seems to "take" well to the product, with reports that it lasts up to eight years between repainting. Without the paint, the product is susceptible to moisture damage and deterioration.

## MEASURING SUSTAINABILITY

Both brick and fiber cement can contribute points to green building rating systems, such as Leadership in Environmental and Energy Design from the U.S. Green Building Council and the National Green Building Standard™. However, true sustainability encompasses more than points for a rating system. The chart below demonstrates major differences between brick and fiber cement when it comes to green performance.

	<b>Brick</b>	<b>Fiber Cement</b>
Longevity	- 100-year life span - No protective coating required	- Unproven life span - Recommended repainting every five to seven years
Built-in safety	- Provides minimum one-hour fire resistance rating - Noncombustible - Resists penetration of wind-blown 2x4 up to 80 mph	- Cannot meet one-hour fire resistance rating by itself - Wind-blown 2x4 penetrates siding when traveling at 25 mph
Energy efficiency	- Homes clad with brick use 2 to 7 percent less energy than homes clad with fiber cement	- Homes clad with fiber cement siding use more energy
Regional sourcing	- Raw material is on average 15 miles away from the brick plant - Brick manufacturing facilities are located in 38 states and within 500 miles of 49 of the top 50 metro areas in the U.S.	- Some manufacturers import wood pulp as a raw material from as far away as Australia and New Zealand
Recycled content	- Many materials can be incorporated as recycled content	- Many manufacturers do not incorporate recycled content
Waste management	- Minimal packaging required — banding and possibly wood or cardboard strips — all of it recyclable	- Product must be protected by packaging until installation - Unused product scraps cannot be recycled
Recyclability/reusability	- Brick buildings can be refurbished, and reuse is allowed by the International Building Code - Can be crushed and recycled	- No buildings sided with fiber cement siding are known to have been refurbished - Is not reused or recycled



## FIBER CEMENT SIDING: DON'T BELIEVE THE HYPE.

At first glance, fiber cement siding appears to be a decent substitute for plank or shingle siding. But remember: this is a new material without the proven history of brick. You cannot overlook fiber cement's maintenance requirements—you may well find yourself making yearly joint inspections and repair as suggested in the manufacturer literature. Look closely at the "50-year warranty" offered by the manufacturers. One of the major manufacturers excludes damage from mold and mildew. Ask yourself why they would do that! The answer is obvious: there is a learning curve for installation, and deviation from the manufacturers' criteria may void that warranty.

Finally, fiber cement siding has to be painted and protected from moisture. Chips, dents and other imperfections require patching, which may or may not match the grain of the original siding. And sanding or sawing to make a repair requires protection from silica dust exposure.

## FIBER CEMENT SIDING STRENGTHS:

### Initial Cost

Less than traditional brick masonry but more than vinyl siding and some other wood siding materials.

### No Special Foundation Support

No brick ledges in the foundation are needed to provide support. Also, applications above rooflines are easier since no special support is required.

### Holds Paint Well

Seems to hold paint better than traditional wood siding. Reports indicate that repainting, which most homeowners opt for, is necessary every eight years or more.

### Texture Options

The siding comes in several finishes that simulate wood grain. Once painted, reports indicate that it is difficult to differentiate from traditional wood siding. Many manufacturers provide complete cladding packages, including soffit, window and door trim, and edge pieces.

## FIBER CEMENT SIDING WEAKNESSES:

### Not As Strong As You Think

A new material without the proven track record of brick. While fiber cement makes the claim that it is fire resistant, the product does contain wood pulp. This is perhaps one reason why it can't attain a one fire rating like brick. Tests have also shown that a wind-blown 2x4 can penetrate the material at 25 miles an hour whereas standard brick veneer exceeds the impact resistance requirements for high velocity hurricane zones in the Florida building code.

### Seams

Many seams are visible between installed boards due to the boards 12- to 14-foot packaged lengths. To prevent water intrusion problems, the seams must be made moisture-resistant through caulking or other means.

### Moisture Concerns

Must be kept dry until installed and painted. Tends to break more easily when wet, and if installed wet, will shrink and possibly void the warranty. Prolonged exposure to water can cause degradation. Must be painted within 90 days of installation, which presents potential coordination problems.

### Installation Issues

Fastening nails must be precisely installed and cannot be over-driven or installed at an angle. If nails are countersunk, then they must be caulked and another nail added. Staples, aluminum fasteners and clipped head nails cannot be used. During installation, silica dust is released by sawing and sanding. Some manufacturers assume "no responsibility for water infiltration within the wall."

### Wavy Frame = Wavy Siding

Boards are fairly flexible and will show a wavy profile when attached to wavy subframing. As one publication puts it, "the lumps will show through."

### Chips and Repairs

Can chip and dent under certain conditions; skill is required to patch the boards to match the manufactured grain. Sanding boards releases silica dust, requiring dust protection measures.

### Maintenance

Requires painting when installed, repainting throughout its lifetime, and annual inspection of board joint caulking. Since fiber cement is a relatively new product, there may be other measures that need to be taken that are not known right now.