Synthetics vs. Metal Roofing

The Slippery Slope of Synthetic Materials

The synthetic roofing market was launched by The 1989 Asbestos Ban and Phase-Out Rule. Prior to the phase-out, cancer-causing asbestos was common in nearly every petroleum-based (asphalt) roofing product. With asbestos banned, roofing manufacturers scrambled to fill the void in their product lines.

Every year, new and "revolutionary" synthetic roofing materials pop up and promise to disrupt the industry with some "groundbreaking" combination of rubber, fiberglass, cement, and/or polymer plastics.

Most experienced roofers chuckle at the prospect of putting their reputations on the line with unproven synthetics that can only be considered "experimental" and prefer to steer clear of synthetic roofing until they've seen for themselves that the roof can endure for at least 10 years.

The endurance bar for synthetic roofing materials is set pretty low because 10 years is the typical limit on warranties for most synthetic roofing products. That's right - only 10 years. Homeowners are often left with no recourse when these synthetic roofing manufacturers go bankrupt long before their product warranties expire.

Roofing Problems With Fiber-Cement Composites

Seasoned roofers are all too familiar with the "imitation slate" roofing problems back in the 1990s. Many of these rush-to-market fiber-cement composite roofs began delaminating and crumbling just a few years after installation and frustrated homeowners had to participate in class action lawsuits that dragged out for years before they got any compensation.

"Coming up with alternatives for traditional shingle materials has proved a steep and slippery slope for a surprising number of manufacturers. Class-action lawsuits have showered down as so-called "lifetime" roofing products with names like Hardishake, Maxishake, and Permatek have prematurely failed."
--Home Improvement advisor Joe Povey at BobVila.com

Roofing Issues With Plastic Polymer Synthetics

Plastic polymer roofing products are intended to replicate the traditional textures of clay tile or cedar shakes with plastic. The problem with plastic roofing materials is that obtaining consistent color across the entire roof is nearly impossible and poor energy efficiency is another major drawback. Plastic polymers have an incredibly low insulation value causing heating and cooling expenses to increase dramatically.

Polymers also have serious environmental issues that go beyond their poor energy efficiency characteristics. They only break down into smaller pieces rather than biodegrading completely and harmlessly. Aging plastic roofing pieces end up in landfills where they are prone to soaking hazardous toxins like DDT, a chemical known to cause cancer for decades now. Worse, polymers in landfills will continue to leak these poisons into the soil for centuries.

Then there is the price issue. Plastic polymer-based tiles, shakes, and shingles cost just as much or more than the materials they're intended to replace. Roof installations with plastics are time-consuming for you and many rely on expensive special fasteners which adds to installation costs.

Worse, synthetic roofing products are still in the emerging technology stage with limited "boutique market" sales volume, so homeowners will pay more for the product to cover startup costs. All for mediocre roofing performance.

Rubber Shingle Shortcomings

Recycled rubber roofs score a few environmental points, but rubber-based shingles and shakes are unlikely to play a major role in the residential roofing sector. At least not until major issues with are resolved including:

- Moisture trapped by rubber compounds contributes to the same types of fish mouthing, curling, and warping failures, just like the asphalt shingles they are intended to replace.
- Color distortion and blotching in large areas of the roof are a common follow-up complaint after exposure to sun and weather.
- There is no type of interlocking technique to prevent wind uplift. You can look forward to ongoing maintenance to replace lost rubber shingles.
- Once a tire, always a tire. Rubber, and some plastics as well, have "memory characteristics" that cause curling in storage, during installation, or after the roof deck has gone through wet/dry expansion stresses.
- Complaints about noxious odors coming from roofing materials derived from recycled tires.
- Chemical hazards from runoff could have a negative environmental impact that nullifies any sustainability advantage of using roofing shingles made from recycled rubber.

DECRA Stone-Coated Steel:Time-tested Performance

Synthetic roofing profiles have to be considered “experimental” until they can pass the test of time and simply can’t compete with DECRA Metal Roofing’s more than 60 years of proven performance and continuous advancements in quality. DECRA has been an industry leader as the original innovator of stone-coated steel roofing since 1957, with a history of roofing resilience dating all the way back to World War 2.

Learn more about DECRA’s time-tested metal roofing products today.