



TEXAS TORNADOES AND HAIL STORMS PROVE INEFFECTIVE AGAINST REVOLUTIONARY NEW ROOFING MATERIAL

**THE ROOF OF YOUR HOME IS A
CRUCIAL COMPONENT. BUT WHAT
HAPPENS WHEN THAT ROOF FAILS?**



Damage from a leaky roof can cascade deeper into a home than simply penetrating the outer layers of a roof like its shingles or ice & water barriers. Allen Lopez of Houston, TX began to notice damage beneath the surface of his home's roof. His first response, like many others, was to investigate his roof shingle warranty and homeowner's insurance. A second stroke of bad luck came to Allen when he discovered that this solution did not resolve the problem for him, which rarely does those in similar situations.

The unfortunate reality of this matter is that many roof challenges are either not covered by warranties & insurance or are too costly for homeowners to take on independently. Fortunately for homeowners, a revolutionary new roofing product called Cericade has been engineered to provide unmatched protection and durability against nature's harshest elements. Its advanced composition has been proven to fortify against the unpredictable and destructive forces of nature. Cericade is proving to save homeowners, like Allen, thousands of dollars as opposed to outright replacing their roofs.



Cericade is a nano-ceramic resin that is specially formulated with protective compounds composed of thousands of Solid Silicate Ceramic Microspheres. This resin forms a strong and impenetrable barricade between the roof's material and the damaging elements of nature. When applied to your roof, it creates a tested barrier that is scientifically documented to provide protection against wind, hail, sun, mold, algae, and more.

But how strong is Cericade's Nano-Ceramic Resin?

REVITALIZE • PROTECT • PRESERVE

22-YEAR-OLD ROOF UNDAMAGED BY TEXAS TORNADOES AND HAIL STORMS... BECAUSE OF CERICADE

In Southeast Texas, where Allen was renovating this home, temperatures often exceed 90 degrees. Windstorms will pound homes with gusts exceeding 70 mph. Those residents often see tornadoes, hail, and many other extreme weather events. (7) Allen's "old, weathered and beat-up" roof was 22 years old. Not only was it cosmetically compromised, but structurally as well, it was not going to continue to hold up against the tough Texas weather.

What's special about Allen is he's a former contractor with extensive knowledge in the Texas construction industry. Working with companies like Ryland Homes, Plantation Homes, MHI, Greenwich's George Wimpey Development, and being featured in the Houston Business Journal, he not only knows a few things about construction, but he's also adept at building envelope science and green construction methods.

"When I was a project manager for Ryland Homes, I ran nine subdivisions for them here in Houston," Allen said. "At the time, we were all about green, we were all about energy efficiency, and we were the builders that were energy efficient. We had that reputation and so I was all about green and everything.

So Allen began investigating his options, the first being the most common - a full roof replacement. Some material costs have quadrupled in less than a decade, and the same can be said about labor costs as well.

One study shows the average price of asphalt shingles jumped from \$76 to \$119 per square in seven years. Cedar shakes shot up from \$255 to \$1,098 during the same time. (5)



VARIOUS ROOFING MATERIAL COSTS HAVE SEEN INCREASES OF 50% TO OVER 400%.

"If you put a new roof on and a storm comes and your brand new roof gets pounded by hail, it's gonna get "beaten up". Allen said. "If you put a new roof on and you pay that cost of replacement and a wind storm comes in with 90-mile-an-hour winds, is that new roof gonna hold up? And then on the warranty, it's gonna go to insurance. The shingle manufacturer is not gonna hold up to that."

Shingles rated for 130-mile-an-hour winds can be triple the cost of a typical roof, according to Allen. However, the Cericade solution cost him less than half the price of replacing the roof with inexpensive three-tab shingles. In addition, the nano-ceramics solution proved to be safe, environmentally friendly, and cost-efficient.

In addition to the cost, Allen had already tested a few other products that offered less-than-stellar performance. The results from those products didn't do more than provide temporary cosmetic improvements.

"Okay, you could coat a roof, and make it look good, and flip the house, but what's it gonna look like in six years, seven years?" he said. Allen explained that the other materials he had tested didn't cover as consistently, left a "rubbery" finish and didn't improve the appearance of the roof.

When he tried Cericade, Allen noticed instantly that his roof was like brand new again. So much so, his HOA accused him of replacing the roof without approval.

"I got a letter from the HOA saying, 'You're not allowed to replace the roof without authorization,' Allen said. "And I thought, I didn't replace the roof, I sealed it."





THE SCIENCE BACKING THIS REVOLUTIONARY ROOFING PRODUCT

Many third-party scientific tests have been run to demonstrate how the nano-ceramic resin fortifies an existing roofing structure. One example of these tests is UL-2218. This is a standard test that Underwriters Laboratories developed to evaluate the impact resistance of roofing materials. (9)

In this test, a steel ball mimics the effect of hailstones by repeatedly impacting the surface of the tested materials. Materials receive a classification from Class 1 to Class 4, with Class 4 being the most impact-resistant.

Roofs with the Cericade treatment exceeded the Class 4 rating from this test by demonstrating that even after the impact from the steel balls, the resin exhibited astonishing 'self-healing' characteristics.

**AFTER A HAIL
STORM, WE DIDN'T
HAVE TO REPLACE
ANYTHING.**

”

Since applying Cericade, Allen's home has been tested by more hail and wind. While two of his neighbors required roof replacements after these storms, "We didn't have to replace anything!" Allen remarked.

Allen raised another consideration for homeowners who still prefer a new roof: Storms will cause noticeable damage at 90-mile-per-hour winds. The manufacturer will likely not guarantee the roof under such conditions.

However, the nano-ceramic resin treatment protects against winds up to 160 miles per hour. In other words, existing shingles can withstand Category 5 hurricane winds when coated with Cericade's nano-ceramic resin. (11)

SAFEGUARDING FROM SUN AND MOLD DAMAGE

The sun's ultraviolet radiation threatens a roofing system's long-term health and functionality. Oxidation also begins to occur from day 0, further weakening the fibers in shingles and leading to their gradual breakdown.

Constant expansion and contraction from temperature fluctuations throughout the day exacerbate the problem by increasing the rate at which roofing materials wear out.

Nano-ceramic resin is a preventive measure that can minimize damage and dramatically extend a roof's lifespan. With a Cericade application, a shingle could expand up to 600% and still be unaffected.

Rapidly changing weather conditions can also make a roof susceptible to mold and mildew growth as we see with Allen's roof. And this isn't just cosmetic on the shingles. That mold and mildew can grow just underneath the shingles once there's a leak through the ice & water barrier. To fight this, Cericade is nearly 100% waterproof when applied on new shingles, and increases water resistance up to 300% on 20-year-old shingles like Allen's.

Even after those storms testing the integrity of the newly treated roof, Allen has reported zero leaks.





AFTER



**IT CUT THE BILLS IN
HALF IN THE
HOTTEST PART OF
THE SUMMER**

”

BONUS BENEFIT: CERICADE ENHANCES ENERGY EFFICIENCY

Cericade's molecular structure is so tightly bound with a UV-resistive technology, even the sun's rays can't penetrate. This is called deflection. So a home is protected from both visible and ultraviolet light by redirecting the energy back into the atmosphere, instead of penetrating the home.

Allen explained in his experience, an owner can battle energy efficiency with special windows, solar screens, and more. But ultimately the home turns into a convection oven and you're just battling your air conditioner.

But with Cericade deflecting that energy, a home that was once uncomfortable even with the air conditioning running, was now comfortable and the air conditioning wasn't running constantly.

"It cut the bills in half in the hottest part of the summer," Allen exclaimed. "So, let's say we take six months. At \$200, that's \$1,200 a year in savings. Multiply that over 10 years. By year three, it pays for itself."

REVITALIZE • PROTECT • PRESERVE

IMPROVING YOUR ROOF'S LIFESPAN AND APPEARANCE

Many options to improve a home, either aesthetically or to increase its property value, can compromise a roof's protective capabilities and lifespan.

For example, adding a skylight or solar panels requires adjustments and modifications that could undermine the roof's structural integrity. And typically, just stepping on the roof instantly voids the manufacturer's warranty.

Asphalt shingles are one of the most common roofing materials, but whether they're stepped on or simply begin to degrade over time, the granule adhesion breaks down. The loosened granules quickly accumulate in gutters and sprinkle across the surrounding property.

The granules are a barrier against the elements and can also double as a preventative measure against a house fire. So once the granules begin to degrade, how protected is your roof?

Cericade's nano-ceramic resin restores both a roof's protective capabilities as well as its aesthetic appearance. The product seals a roof for a pristine look while also preventing any further leaks or cracks that a roof may have sustained over its lifetime.

Studies conducted on Cericade's nano-ceramic resin showcase a resounding 1800% increase in granule adhesion on 20-year-old shingles.

REVITALIZE • PROTECT • PRESERVE



BUT WON'T MY WARRANTY COVER MY ROOF?

Unfortunately, usually not. While most asphalt shingles boast an average 35-year warranty, that warranty can become void immediately when someone steps on the roof, even for cleaning or maintenance. And that warranty can typically only be valid if the original construction company who provided the original work is still available.

Many warranties are not all-inclusive either, meaning the homeowner is more often than not on the hook for the cost of labor for installation.

While many roofing companies state their work should last 20 to 30 years, extreme weather or other causes could raise the need for repair or replacement in as little as 10 years. Deterioration often becomes more noticeable during this time.

EXTREME WEATHER EVENTS MIGHT REQUIRE REPLACING A ROOF WITHIN 10 TO 15 YEARS, WHILE HOMEOWNERS OFTEN ONLY KEEP A HOME FOR 13 YEARS.

It's also extremely rare that roof warranties transfer from homeowner to homeowner. Since preowned homes are a significant part of the housing market, many homebuyers must consider replacing a roof they've recently just purchased. Studies show that the average homeowner keeps a house for 13 years, meaning many homeowners will incur a roof repair or restoration. (6)

Cericade comes with a 35-year warranty, outlasting asphalt shingle warranties and in Allen's case, extending it.

"That's huge. Can you imagine that you could take an old roof and you have a 30-year warranty?", said Allen.



CERICADE COMPLIMENTS SOLAR SOLUTIONS

Many homeowners who want to reduce utility costs and support the environment turn to solar energy. However, solar panel installation voids nearly every manufacturer's warranty for asphalt shingles. They also need to be maintained with frequent repairs, and most asphalt roofs will need to be replaced after the first 15 years. However, solar begins to show a return on investment during that same window of time. (12) If a roof repair is necessary before that point, a homeowner will never see the financial return on their investment. Even simple foot traffic for an inspection is enough to void some warranties.

So how can you install solar panels and still maintain the integrity of your roof?

A Cericade application before installing solar panels protects the roof from foot traffic from installers, future water, mold & mildew damage, and more.

FORTIFY YOUR HOME & SAVE THOUSANDS

The stress of dealing with roof damage can be overwhelming for homeowners. The traditional solutions of warranties and insurance often fall short in providing adequate protection, leaving homeowners to foot the bill for costly repairs.

Cericade offers a revolutionary new solution to this problem. Its advanced composition provides unmatched durability and protection against the unpredictable forces of nature. By applying this nano-ceramic resin to your existing roof, you can proactively fortify your home against future damage while also saving money on repairs and utility bills.

REVITALIZE • PROTECT • PRESERVE

CONFRONTING COMMON CHALLENGES WITH ROOFING AND SHINGLES

The roof is an essential part of any building as it provides the homeowner with constant protection from nature's elements. It's responsible for providing the homeowner protection from a number of key antagonists.

A sound roof also provides homeowners with much-needed drainage that would otherwise cause harm to the structural integrity of the home.

This allows precipitation to effortlessly run off the sides of the roof which will benefit the homeowner by increasing the longevity of the house by alleviating unnecessary pressure which can ultimately form leaks that can damage your home's interior. The roof also helps prevent the growth of mold which can introduce health risks due to poor air quality.



REVITALIZE • PROTECT • PRESERVE

FINAL THOUGHTS

Cericade's nano-ceramic resin roofing application offers numerous benefits that make it a superior choice for both homeowners and property managers alike. The innovative nano-ceramic resin technology provides superior protection against the elements while also increasing the longevity of the roof and reducing maintenance costs. Its energy-efficient properties also make it an eco-friendly solution, reducing energy consumption and energy costs.

Moreover, the application process is quick and easy, minimizing disruptions to either lifestyle or business operations. With its superior performance and cost-effectiveness, Cericade's nano-ceramic resin roofing application is a wise investment for any homeowner or business seeking to enhance the durability, energy efficiency, and aesthetic appeal of their building's roof.

SOURCES

1. <https://e360.yale.edu/digest/extreme-weather-events-have-increased-significantly-in-the-last-20-years>
2. <https://www.britannica.com/technology/roof>
3. https://www.law.cornell.edu/definitions/index.php?width=840&height=800&iframe=true&def_id=2e196b450c3541032b921cc83ee88d51&term_occur=999&term_src=Title:7:Subtitle:B:Chapter:I:Subchapter:C:Part:58:Subpart:B:Subjgrp:165:58.126
4. <https://cericade.com/case-studies/>
5. <https://fred.stlouisfed.org/series/PCU3241223241221>
6. <https://www.nar.realtor/blogs/economists-outlook/how-long-do-homeowners-stay-in-their-homes>
7. https://www.weather.gov/hgx/climate_iah_normals_summary
8. <https://structuretech.com/improper-shingle-nailing-2/>
9. <https://cericade.com/ul-2218-test/>
10. <https://www.interactivehailmaps.com/local-hail-map/houston-tx/>
11. <https://cericade.com/astm-d-3161-wind-resistance-test/>
12. <https://www.solar.com/learn/what-is-the-average-payback-period-for-solar-panels/>