

Product Benefits

The look of wood; the benefits of technology.

Wood shake appearance at a lower cost of ownership.

The appeal of hand-split cedar on your roof, without the splitting, warping, fungus, rotting, and risk of fire inherent to authentic cedar shakes. Ce•DUR shakes look and install like cedar wood shakes, but offer technically superior protection from impact/hail, fire, wind and other harsh elements.

Impact & Hail Resistant

- Class 4 Hail Rating under UL 2218
- Self-healing to hail damage
- Check with your local insurance agent about discounts.

Fire Resistant

- Class A under ASTM E 108/UL 709 when installed with readily available and approved underlayment. Class C installation where permitted. See installation guide for specifics.

Wind Resistant

- Can be installed in areas subject to a maximum wind speed of (3-second gust) 100 mph, with a mean roof height of 40 feet.
- Tested up to 110 mph (3 second gust) with additional fasteners and with reduced exposure.

Durable

- Very low (less than 1%) water absorption eliminates freeze/thaw cycle effects and allows roofing to be installed and walked on in cold weather. Care should be taken when installed in temperatures under 32° F (0° C).
- Resists snow release/sliding and won't rot or support fungus or mildew.

Wood Appearance and Features

- Color pigmentation throughout eliminates concern for damage from sunlight/UV, unlike surface coated products that will prematurely weather over time.

Easily Installed

- Similar installation technique as wood shakes; see installation guide for specific requirements.
- Lightweight
- Can be cut, glued and nailed.
- No special tools, hardware or accessories are required.
- Can be installed directly on the deck, no battens required.

Appearance

- Molded from real cedar samples to create a realistic wood appearance.
- Age to true natural wood colors in a few weeks with normal exposure to heat and sunlight.

Affordable

- Competitively priced with other simulated wood shake products.
- No special tools or accessories are required.

Insurance Benefits

- Consult your insurance company for discounts available with Ce•DUR.

Product Warranty

- CeDUR Shakes are protected by a Lifetime Transferable Limited Product Warranty.

Composition

- Poly Urethane (thermoset polymer plastic)
- Proprietary flame retardant

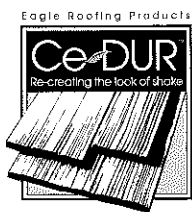


Environmentally Friendly

- No trees or lumber by-products are consumed in the production of Ce•DUR.
- Lasts a lifetime, very low life-cycle costs.
- There is little scrap material after installation thus conserving space in landfills.
- Scrap material can also be recycled and re-introduced into the production of more Ce•DUR shakes.
- Contains a significant portion of recycled glass used as a UV absorber and filler.
- Chemically inert, no noisome odor.
- Does not propagate flame, no toxic fumes are released.
- Approximately 1R per inch insulation value—comparable to most wood building materials.
- Does not employ ozone depleting blowing agents.
- Does not emit noxious or hazardous fumes or particulates.

Beautiful. Affordable. Durable.





FAQ's

How long has the Ce•DUR shake been on the market?

The first Ce•DUR shake installations were completed in late 1997 in Colorado. It is performing beautifully under the harsh UV, snow, hail, wind and rain that the Colorado climate produces.

How is the Ce•DUR shake manufactured?

The Ce•DUR shake is manufactured by a modified reaction injection molding (RIM) system. This system is a proven and high quality manufacturing process in polyurethane technology based on the automotive industry.

What is the Underwriters Laboratories, Inc. (UL) 2218 impact test and how do Ce•DUR shakes rate?

There are four impact resistance ratings from 1 to 4, with 4 being the most impact resistant. In the Class 4 test a 2" steel ball is dropped from 20 feet on multiple surface points of the Ce•DUR shake. Ce•DUR passed the test with a Class 4 Impact Rating.

How can Ce•DUR shakes be "self-healing" after hail damage?

It only takes a few sunny days to heal hail impact indentations in Ce•DUR shakes. The material is a closed-cell material that compresses at impact. As heat is applied by normal sun exposure, this compression is relaxed, and the cell structure returns to its original state, repairing any dents. The same closed-cell impact resistant nature provides compressive/walk-on strength and snow-load resistance..

What is a Class A fire rating and what is the best rating?

Fire ratings (under UL 790 testing protocol) are granted at one of three levels: Class A; Class B; and Class C. In some cases, products are not fire rated, as they cannot meet even Class C criteria. Class A is the highest rating a product can receive. Testing is accomplished by measuring the resistance to penetration and spread of flame of a representative test roof. The Class A rating indicates that the product has equaled the testing industry's most stringent fire resistance standard, a measure of how the roof will perform in severe fire conditions.

What is a Ce•DUR shake roof's fire rating?

How can I get a Class A fire rated roof?

With the addition of a standard cap sheet (ASTM D 3909), Ce•DUR has achieved a Class A fire resistance rating. Please refer to our installation guide for specific underlayment requirements for a Class A or Class C installation.

How does the Ce•DUR shake perform in high wind areas?

Ce•DUR can be installed in areas subject to a maximum wind speed of (3-second gust) 100 mph, with a mean roof height of 40 feet. Ce•DUR is tested up to 110 mph (3-second gust) with additional fasteners and with reduced exposure.

Do I need to worry about the structural capability of my roof framing when I re-roof with Ce•DUR shakes?

Ce•DUR shakes weigh only 170 lbs. per roofing square. There should be minimal structural concerns at this weight as long as the existing building structure and roof deck are sound.

How much water does the Ce•DUR shake absorb?

Basically, none. When tested through full submersion for 7 days, Ce•DUR shakes absorb less than one half of one percent water by weight. They essentially and practically weigh the same wet or dry. This feature also give the Ce•DUR shake its superior freeze/thaw cycle performance.

Are specially trained contractors necessary for Ce•DUR installations?

No. Ce•DUR shakes are designed to replicate traditional wood shakes in installation method as well as appearance. No special tools or techniques are required. Any licensed contractor experienced with wood shakes should be capable of installing Ce•DUR.

Can Ce•DUR shakes be installed in cold weather (during winter)?

Yes, Ce•DUR can be installed in the winter. Extra care should be taken when installations occur in temperatures under 32°F (0°C).

Can Ce•DUR shakes be installed over existing roofing materials like asphalt or wood shakes?

No. Ce•DUR shakes should not be installed over existing roofing materials. Improper installation may void the warranty.

How is the cut edge of a Ce•DUR shake sealed against moisture?

No sealant is required on cut surfaces and no repair is required if cut or chipped because Ce•DUR shakes are made to prevent moisture intrusion and are colored throughout.

Testimonials



Homeowners

Denver area homeowner with insurance claims:

"Ce•DUR is the only product that meets all of my needs, and I'm willing to wait to get it."

An Evergreen, CO homeowner:

"I've had Ce•DUR on my addition for over 5 years—it's exceeding my expectations. I'm anxious to put it on the rest of the house before another fire season."

Greenwood Village homeowner:

"I can't wait for Ce•DUR. I'm putting up the cheapest wood shakes now so that I can replace with Ce•DUR soon."

Several metropolitan area homeowners:

"My roof has only cosmetic hail damage—no leaks. Please put me on the order list."

Roofing Industry Experts

Bryson Companies, Roofing Industry Consultants:

"The Ce•DUR shake is a great product, it will set a new standard in the industry."

Regional Fire Chief

"We need addresses and photos of Ce•DUR installations so we don't mark the home as having wood shakes in case of wildfires."

Bart Roggensack, Former President, Roofing Industry Association:

"On a scale of 1 to 10, Ce•DUR is a 12."

General Manager, Building Supply Contractor/Wholesaler:

"On my request you sent me a sample of your Ce•DUR shake last fall. I must tell you, I have quit showing it to homeowners because without fail, the ones who saw it decided they would rather wait for it to become available than to buy anything else. That sample cost me several sales! As I'm sure you know, in a side-by-side comparison, there is no comparison. The majority of our homeowners currently have wood shake roofs and are sick at the sight of asphalt/composition going up in their HOA's. I believe there is a tremendous market for Ce•DUR shakes in the Pacific Northwest."

Roofing Contractors

A Denver roofing contractor:

"Here is another order for Ce•DUR shakes. This is the best new roofing product I've seen in years. We like the fact that it goes down like wood and is tough and durable. You don't have to worry about stepping on it at all. We installed one job in January at 10 degrees Fahrenheit, right after a 10" snowfall."

A Colorado roofing contractor:

"Ce•DUR is easy to sell with all its great homeowner benefits. Everyone wants it."

Architects

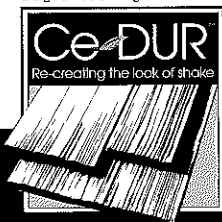
A leading architect in Colorado:

"I am extremely impressed with not only the appearance of this product, but its diverse functionality and its state of the art material composition. I have presented this product to the partners and principals of the project I am currently involved in as lead architect. It was received with great enthusiasm and will be recommended as a preferred material, for use in this exclusive development. I will also be recommending that this product be approved for use in several high-end mountain communities."

Builders/Developers

Perry Timon, Timon Development, custom home builder:

"A great product, with a wide application in new construction, it offers great potential for savings in building costs."



Product Comparison

	Ce-DUR	Davinci	Inspire	Lamarite
Class A Fire Rating	1 layer of ASTM D 3909 capsheet; 2 layers of ASTM D226 18" interply	#30 & Versa Interply	Fire rated underlayment is required	1-layer Moisture Guard or 1- layer M&T underlayment
Class C Fire Rating	1 layer of ASTM D226 36" basesheet, 2 layers of ASTM D226 18" shake interlay	Manufacturer does not specify.	Minimum Requirement on solid deck is one layer of 30 lb. felt	TAMKO No. 30, No. 30 UL, or No. 30 ASTM organic felt underlayment. TAMKO Nail Fast SBS modified organic utility underlayment. Non-perforated asphalt saturated organic felt that meets ASTM D226, Type II.
Wind Classification	3 second gust of 100 mph, with a mean roof height of 40 feet. 3 second gust up to 110 mph with additional fasteners and with reduced exposure.	110 mph / 50 lbs per sq ft	110 mph	100 mph (3-second gust) 40' exp B
Hail Classification	Class 4	Class 4	Class 4	Class 4
Min InstallationTemp.	At temperatures below 32°F (0°C) care should be taken to avoid damage to the shakes	Manufacturer does not specify.	32 degrees Pending	Contact manufacturer for installation below 45°F.
Width	5", 7", 12"	4", 6", 7", 8", 9"	12"	5", 7", 12"
Building Codes Approvals	ICC-ES Pending	SR-2119 NOA No. 012-3.03	Pending	ESR-1828 RC-124

EcoStar Seneca Shake	Medium Wood Shakes	Heavy Wood Shakes	50 Year Asphalt Shingles	Architectural Shingles
GP Gypsum Corporation's DensDeck Roof Board or Elk's VersaShield	ASTM D3909 Capsheet and 2 layers D226 18" shake felt installed with Class B shakes	ASTM D3909 Capsheet and 2 layers D226 18" shake felt installed with Class B shakes	# 15 Felt-ASTM D 226	# 15 Felt-ASTM D 226
UL Listed Aqua Guard or equal	2 layers D226 18" shake felt installed with Class C shakes	2 layers D226 18" shake felt installed with Class C shakes	Product is available with Class A Rating.	Product is available with Class A Rating.
100 mph 3-second gust	130mph/210km/hr-NEW	130mph/210km/hr-NEW	110 mph	110 mph
Class 4	Class 3	Class 4	Class 4 for special shingles	Class 4 for special shingles
Contact manufacturer for installation below 45°F.	No Reference	No Reference	Manufacturer does not specify.	Manufacturer does not specify.
6", 9", 12"	No Reference	No Reference	38 3/4 x 13 1/4	40 x 14 1/4
ESR-1715 NOA No. 06.0905.05 Texas Dept. of Insurance	5133 or ESR-2573 Yes-Listed	5133 or ESR-2573 Yes-Listed	ERS 1389-Certainteed Yes-Listed	ERS 1389-Certainteed Yes-Listed