



Institutional



Residential



Cladding

GREENSTONE SLATE®

Vermont Architectural Roofing Slate

Quarriers and Purveyors of
Fine Quality Slate Since 1955

Below:
Greenstone® Non-Weathering
Gray/Green Vermont slate.
Photo courtesy of
Newgard Custom Homes,
Northbrook, Illinois.





Photo © Jerry Markatos

Discover the Elegance of a Vermont Slate Roof

Every slate roof is unique with its own natural character. Structures incorporating slate are known for their beauty but they are revered for their longevity.

Beautiful slates can easily be supplied from a vast array of international sources. However, it must be stressed that not all slates are created equal. Without longevity, the benefits of a slate roof are lost. Securing a durable slate is not a simple choice but Greenstone can ease this challenge. From our 58 quarries, in what is noted around the world as the Slate Valley of Vermont, we provide the complete range of Vermont colors, blends and textures. Since 1955 our stone has been worked exclusively by Greenstone trained craftsmen. Our production facilities combine time-proven traditional techniques with the latest manufacturing technologies and our quality control is second to none.



Greenstone slates are hand-split from cut blocks of stone

Greenstone Slate Company quarries produce exceptionally fine quality stone solely for roofing slate. This has led Greenstone Slate to become a principal producer of colored slate roofing worldwide. We deliver consistently high quality product, excellence in customer service, comprehensive installation support, and competitive pricing of Vermont products. It is not just slate, it is different, *it is Greenstone Vermont slate.*

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The one-hundred year roof!

Greenstone Slate® is **ASTM S1** rated — the best rating available. S1 slate is rated to last at least 75 years. We take that to the next level and provide a **100-year guarantee.** (Ask to see our warranty statement for complete details.)



Beautiful yet practical

Slate is considered one of the world's most beautiful roofs. Slate's extended life expectancy and durability creates an overall low cost of ownership. That's why it is frequently the choice for institutional applications such as **colleges, churches and government buildings.**

Slate will complement any structure design due to its wide range of:

- Natural colors
- Natural blends that contribute to sustainable architecture
- Thicknesses
- Surface textures
- Overall roof textures

Superior building protection

The weight and density of Vermont slate is key to its superior ability to protect a structure — Greenstone Slate is Miami-Dade approved for hurricane zones! However synthetic product and lesser quality slate producers will often claim that Vermont slate is too heavy for the average roof. This is generally not true though in certain situations it is desirable to reduce the installed weight of slate from 9 to 6 lbs

per sq ft. For more than 20 years, innovative companies have been incorporating Greenstone Slate® into their lightweight roof installation systems. The crux of this development was to obtain a lightweight slate application without jeopardizing the integrity



Lightweight slate installation with flush solar panels



Greenstone Slate cladding: Seattle Children's Hospital

of the natural product. These strategic partnerships have enabled us to provide reduced weight slate roofs with proven durability, and new benefits including:

- A natural alternative to synthetics, ideal for re-roofing cedar shake.
- Batten-style installs that help cool the roof, are walkable, and have an elegant, flush-mount, integrated solar panel option.
- New and efficient approaches to stone cladding for buildings.

More Greenstone benefits

- Slate is fireproof and waterproof.
- It is permanent, a lifetime investment.
- It's density provides an insulating factor that helps save energy.
- Stone is impervious to fungi and mold.
- It resists climate/temperature changes.
- Slate is sustainable, keeping five or more asphalt roofs out of a landfill.
- It is a hail resistant Class 3 or Class 4 roofing material (depending on grade).



To the left is a home that has a roof constructed using exclusively **Semi-Weathering Gray/Green, Standard Grade: Rough Texture**. A popular color when a traditional slate appearance is desired for the roof.

Slate is the roofing material of choice for many institutions and fine private residences.

This slate is **Heavy Grade** shown with snow guards. This particular roof is a mix of colors: **60% Vermont Gray/Black, 20% Semi-Weathering Gray/Green and 20% Royal Purple**.

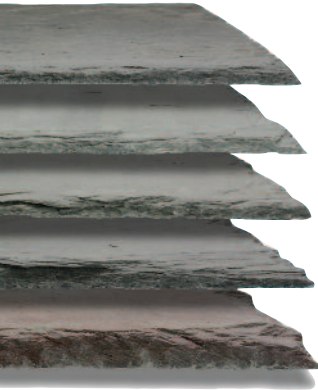


Photo © Robert Benson

Slate Grade: Getting the look you want and the protection you need

Natural selection

Greenstone Slate® is measured by eye to thickness and is then split by hand. It is truly the result of a craftsman's touch. However, as the result of the process, no two pieces will be exactly the same. Once split to a thickness and then trimmed to a dimension, the slate is "graded" according to the uniformity in thickness of each piece. There are no machines or calipers used in this "grading technique". It is the characteristics of



the natural stone and the trained experience of the craftsmen that separates Greenstone's Vermont slate from all other products. **There is truly no comparative roofing product!** Greenstone Slate® comes in five thicknesses or *grades* that—just like color—contributes substantially to the look of the roof. It also determines the ultimate level of protection, including hail rating.

Architectural Grade

When it comes to value, Architectural Grade is the most selected, measuring between 3/8" and 1/2" thick. It offers the best mix of characteristics with rich textures for aesthetic appeal, a high level of durability—it has earned a Class 4 hail rating (check with your insurance company about hail coverage for slate roofs)—yet will not need the extensive additional structural support that heavier grades require. However, it weighs 1200 to 1600 lbs per square.

Heavy Grade

Heavy Grade slates exhibit strong stone surface texture, and is visually discernible from synthetics. Measuring 1/2" to 3/4" in thickness they bring a more robust texture to the roof, as well as additional strength. This Class 4 hail rated slate weighs 1800 to 2200 lbs per square.

Estate Grade

With Rough Texture Grade characteristics and each slate at least 3/4" thick, nothing looks quite like an Estate Grade Vermont slate roof. With its enhanced grain, it is an unmistakable slate roof with an expected usage

of over 150 years. Impervious to hail and even *bullets*, these ultra-premium slates weigh 2500 to 3000 lbs per square.

Standard Grade: Rough Texture

This slate is split at thicknesses between 1/4" to 3/8". It has the surface appearance of Heavy Grade in a thinner slate. It is ideal for traditional projects with a goal to limit the weight from 900 to 1000 lbs per square. Standard Grade Rough Texture is also commonly used in conjunction with our lightweight installation systems, reducing the installed weight to under 6 lbs per sq ft.

Standard Grade: Selects

These slates are a very uniform 1/4" in thickness and have smooth surfaces. Select Grade roofing slate is most commonly used in repair projects. It weighs from 680 to 780 lbs per square.

Call us to discuss the appropriate grade for your project: **800.619.4333**



GREENSTONE SLATE®
Vermont Architectural Roofing Slate
Since 1955



Greenstone Slate Colors and Textures

See back panel for important information about slate color and a guide to interpreting slate's descriptive terms.

Need an Installer?
See back panel

Semi-Weathering Gray/Green

- Starts out gray/green and weathers to rich earth tone colors
- 10% and 25% of slates will show soft tones of buffs and tans over time
- Brings a rustic, textured appearance to the roof
- Excellent for commercial, residential and institutional buildings

Vermont Strata Gray

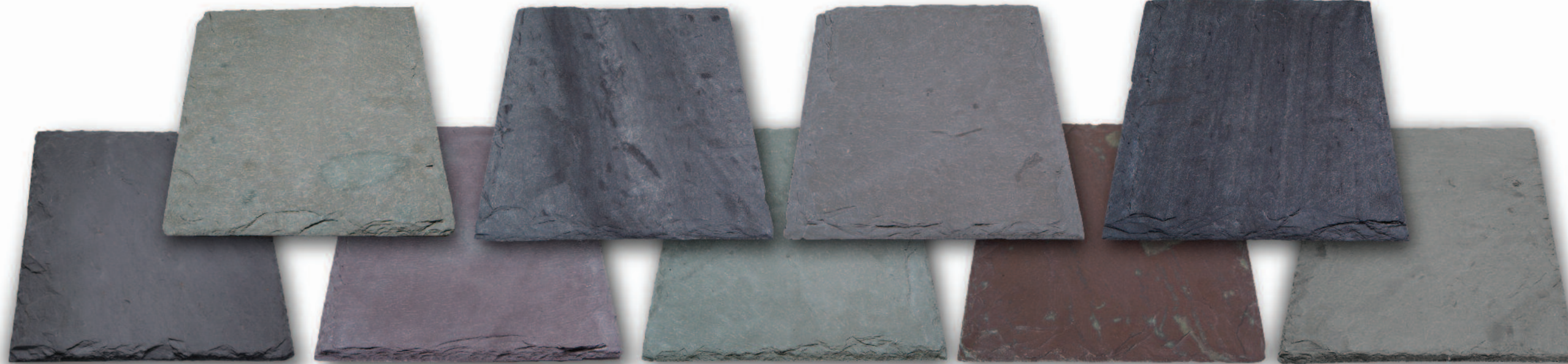
- Distinctive slate with an overall grayish background mottling with various shades of darker gray/black give it excellent character.
- Varying textures contribute to its unique character
- Will display some weathering

Vermont Clear Gray

- Semi-weathering hard-vein slate
- Comes in shades of light to medium gray.
- When weathered, 10% to 20% will transform in buff shades

Vermont Gray/Black

- Shades of gray and black and is one of the most widely used colors
- Any commercial, residential or institutional project
- Traditional slate roof appearance
- Approximately 4% to 6% of these slates will exhibit slight signs of weathering after 12 to 18 months



Unfading Spanish Black

- Non-fading and non-weathering, we import this elegant deep blue/black slate from Spain
- Use alone or in a blend
- S1 rated slate (same as Greenstone Vermont Slate)

Non-Weathering Mottled Green and Purple

- Unusual slate, a uniquely Vermont color
- Colors are a blend of soft shades of purple and green. At times, purple will be predominate color and at others green becomes predominate

Non-Weathering Gray/Green

- Green with shades varying slightly to light gray
- One of the most often selected roofing slates
- Often used alone but frequently chosen for a blend of colors for multi-colored roofs

Non-Weathering Purple

- Vibrant, non-weathering slate with color that can range from a clear plum to a deep magenta with green splashes
- Use alone or in a blend

Wells Gray

- Non-weathering, soft and continuous gray hue
- Sometimes described as "the battleship color", this slate exhibits soft, light grays accented with an occasional splash of black.
- Some pieces may exhibit small markings of green
- A favorite of architects and owners for custom homes where they are blended with other slates to create multi-colored roofs



"Slate is a tried and true material for building a beautiful and very long lasting roof for any structure. The 100 year life expectancy is no projection—it is the result of 'field application.'"

— Jonathan Hill, President, The Greenstone Slate Company

Attention Architects & Contractors!

Call us for a FREE digital resource with comprehensive information on Greenstone Slate®—including an interactive slate color selector, detail on specifying slate, project library, lightweight installations, manufacturing videos and much more.



Founding Member
National Slate Association



Founding Member
Vermont Slate Quarry Association



Member
Slate Roofing Contractors Association



Greenstone Slate® has been thoroughly tested and is Miami-Dade County approved for hurricane force winds. Go to <http://greenstoneslate.com/MD> to view current certificate.



Greenstone Slate® is an approved American Institute of Architects Continuing Education course provider



Greenstone Slate® is ASTM rated S1 slate—the highest quality rating possible

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Greenstoneslate.com • Call 800 619 4333

Important facts about slate color...

There are thousands of slate roofs still in service today installed in the 1800's! With such a long history, many terms describing the material have been coined and over the years some have evolved into *misinterpretation*. For example, a common misconception associated with the nomenclature of describing slate occurs when the terms weathering and fading are erroneously interchanged. Below is a clarification of slate terms:

Nomenclature of Slate

Fading

The term "fading" refers to certain slates that after prolonged exposure to the elements exhibit a chalk-ashen residue on the exposed surface of the slate. The chalk-ashen residue is the result of a chemical reaction and the associated release of calcium from the body of the slate. This release weakens the structural integrity of slate and is detrimental to the slate's life expectancy. The term is most often used in conjunction with the Blue Black or Black slates of Pennsylvania and Virginia.

Non-fading or Unfading

These terms refer to certain slates that after a prolonged exposure to the elements do not produce the chalk-ashen residue. "Non-fading" or "unfading" slates usually have greatly extended life expectancies over those slates prone to calcium release.

Classification of Colored Slate

Colored slate *does not fade*, but it will experience varying degrees of color change. This *weathering* of slate is due to the oxidation over time of minerals embedded in the slate. Depending on mineral content, the weathering process slowly changes the slate color. The color change is often a movement toward buff, brown, gray or tan. *This surface oxidation is not detrimental to the slate's structural integrity and does not shorten the life of a roof.*

Colored slates are classified in three types, based upon the degree of color change over time:

Weathering

The term "weathering" refers to slates that will exhibit the largest number of individual pieces that will transform from the original color to an earth tone.

Non-weathering

The term "non-weathering" refers to slates that exhibit the least amount of color change.

Semi-weathering

The term "semi-weathering" refers to roofing slates that have varying mineral content. Some of these slates will undergo a color change while others remain their original shade. The percentage of semi-weathering slates that will experience color change is variable depending upon the location in the quarry from which the slate was extracted.

Color disclaimer: The slate colors in this brochure are approximate because slate is a natural material. Its color varies to some degree depending on the geological conditions at the site where it was formed. Further, printed materials and electronic media from televisions to monitors to mobile devices of various brands will also influence the final representation of color.

Installation

When laying slate, workmanship is as essential as the proper selection of the material. When you consider the durability of slate, the more obvious this factor becomes. Vermont slate, the most lasting roofing material known, should be laid by roofers of experience and training. Although, it is an installation practice with a long history, it certainly is not a lost art. Greenstone can help link slate projects to quality installers and we are always ready to assist and answer all slate related questions. We also provide architects and contractors with a comprehensive manual of essential installation practices. It's available at no charge. Call 800.619.4333 or send an e-mail to info@greenstoneslate.com.



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