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From the Insulated Foundation to the Recycled Roofing Tiles, Mountain Living's Natural Dream Home Features the Latest in Green Building Technology



There is no question that green has become the buzzword of the century, especially in the building construction industry, where the combination of preserving natural resources and creating sustainable, long-lasting structures has become the driving force behind both commercial and residential construction. With soaring energy and material costs, an economic downturn and a continuously increasing carbon footprint, building and home owners alike are pursuing, and often exclusively purchasing, green, sustainable construction materials for their new construction and renovation projects – securing the durable performance of their buildings while promoting a cleaner, healthier environment, both indoors and out.

Recognizing the vital importance of sustainable construction and committed to ecological construction in the western Rocky Mountains, Mountain Living Magazine recently completed its second home in the Mountain Living Natural Dream Home series. All of the homes in this series are designed to surpass Built Green® standards, incorporating organic, eco-friendly and sustainable building products whenever possible. EcoStar's sustainable synthetic shake tiles were a therefore a natural fit when choosing a roofing system for this home.

As one of only two homes in the state of Colorado to be included in the U.S. Green Building Council's

LEED® (Leadership in Energy and Environmental Design), Mountain Living's Natural Dream Home of 2008 is the epitome of eco-conscious, energy-efficient construction while exuding an unsurpassed rugged luxury.

Located in Cordillera, Colorado, an award-winning PGA development situated near the popular resort town of Vail, the 8,000-square-foot home perfectly blends into its natural surroundings, which consist of three million acres of National Forest bordered by 360-degree mountain panoramas. Constructed with natural, organic, reclaimed and recycled materials in every application possible, the home is not only seeking to receive LEED certification, but was also designed to achieve ENERGY STAR® qualification and certification from Built Green Colorado.

Because of its location in Cordillera, which is part of the notoriously green Eagle County, the construction of Mountain Living's Natural Dream Home had to meet strict environmental requirements. Eagle County's Efficient Building Code (ECOBuild) has instituted a points-based system that rewards the use of energy- and cost-efficient building materials and encourages home builders to preserve their natural surroundings by creating minimal environmental impact during construction.

The Eagle Valley Alliance for Sustainability is another environmentally conscious program that had a strong affect on the construction of Mountain Living's Natural Dream Home and motivated Margie Hamrick, owner of Ecoexistence, developer and builder of the home, to recycle all of the left-over building products, donating them to the local chapter of Habitat for Humanity.

Therefore, when products were chosen for the home, it was not only necessary that they meet strict requirements for environmental sustainability but also that any scraps generated during construction would

Mountain Living

Location:

Cordillera, Colorado

Application:

EcoStar Seneca Shake™

Majestic Slate™ Traditional

be durable enough to be suitable for donation toward future projects. In light of these considerations, when it came to choosing a roofing tile, there was a slim selection of products that could provide both the durability and the environmental benefits necessary for the project's location, while illuminating the natural luxury of the home.

The construction of the home, which began in June of 2007, started with an insulated concrete form foundation, followed by an FSC-certified wood frame, triple-pane sealed-glass windows and an exterior wall of hand-crafted logs. The home was insulated with a high-R-value spray-foam insulation, incorporated photovoltaic solar panels and used a recycled shake roofing tile, all of which both increased the home's energy efficiency and significantly improved the quality of its indoor environment.

Because of the frequent, extreme weather conditions in Cordillera, including snow, ice and heavy wind, among others, the roof was a key element in the home's construction. After various options were considered, synthetic shake tiles manufactured by EcoStar™, a leading manufacturer of steep-slope roofing products, were chosen for their combination of eco-friendly characteristics and natural beauty. EcoStar Seneca Shake™ emulate the look of natural shake nearly perfectly, but add to that enhanced strength and durability, providing long-term protection and increasing the service life of the roof. EcoStar's Aspen Blend profile was chosen, as it incorporates a 60/40 blend of Seneca and Seneca Plus tiles, each of a different thickness, creating a unique, natural texture.

"As consumers look for sustainable solutions, it can sometimes be difficult to determine what products are truly environmentally friendly and which ones have just jumped on the green bandwagon," said Charlie Taft, EcoStar Vice President of Sales. "EcoStar tiles are



the only tiles on the market made from 80% post-industrial recycled rubber and plastics."

With enhanced recycled content, Seneca Shake met the environmental requirements of the project and could be installed with minimal impact to the environment, as they are completely recyclable at the end of their service life. Using recycled EPDM and TPO rubber, pre-consumer plastic and baby diaper scraps, among other recycled scrap materials, the manufacture of EcoStar tiles also drastically reduces content that is sent to landfills annually, contributing to the home's goal to achieve LEED certification.

The EcoStar tiles also provided the enhanced, long-term performance that was necessary for true sustainability. Because of their increased flexibility and light weight, Seneca Shake provide superior



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mountain living

protection against severe weather conditions, such as wind, snow and hail, which are prevalent in Cordillera, Colorado. With a Class A fire rating, EcoStar tiles would also protect the home against forest fires, which was a top priority when choosing the building materials. This superior protection was an additional benefit that the EcoStar tiles provided over natural shake, which is susceptible to fire and prone to severe damage, often requiring regular, long-term maintenance.

The use of EcoStar tiles also met ECOBuild's requirements for the use of cost-effective building materials. While Class A fire-rated Seneca Shake tiles are not inexpensive, they did save a significant cost when compared to natural wood shake, because of their improved lifecycle.

With EcoStar Seneca Shake tiles covering nearly 70% of Mountain Living's Natural Dream Home, the home is ensured to protect its inhabitants from nearly every

condition Mother Nature might throw its way, maintaining comfort indoors while preserving the surrounding environment.

In addition to the EcoStar tiles and other natural, recycled structural components, the home also incorporated eco-friendly, low-VOC interior accents, including furniture and cabinetry that was stained with natural coffee, tea and wine.

Nothing was left out in the pursuit of organic, ecological and sustainable building products in the construction of this home. With its supreme combination of natural beauty, supreme luxury, energy efficiency and environmental preservation, the Mountain Living's Natural Dream Home is one of the most cutting-edge designs in green building construction – an icon of eco-friendly sustainability in an industry and ecological system that are in desperate need of it.



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