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Asphalt Shingle Design Trends

Designer Look; Demanding Performance.



013 promises continued evolution in the world of North America's most popular roofing choice, asphalt shingles. With a variety of styles, colours and price ranges, asphalt shingles continue to meet the challenge.

While laminated shingles, where multiple sections of shingles are bonded together to increase dimensionality have been popular for almost 30 years, asphalt shingle manufacturers are challenging the traditional wood shingle appearance with a multitude of styles, cuts and colours to create the "designer look" residential property owners want.

With many available styles, shapes, and colour blends, affordable aesthetics are driving evolution in asphalt shingle design.

"The designer shingle look is without question a driving trend in today's market," says Carol Perkins, director of marketing at IKO. "Looking at the whole house, creating a way for the roof to stand out and define value, is something consumers want and something manufacturers are focused on delivering."

But it's not just aesthetics driving new development in the asphalt shingle industry. Asphalt Roofing Manufacturers Association (ARMA) and the industry have worked proactively and cooperatively with code agencies to develop codes and standards that impact the way shingles are expected to perform.

In recent years, three primary technical trends have emerged as drivers to influence shingle construction:

· Reflectance for increased energy efficiency in southern climates.

- · Improved impact resistance.
- · Increased attention to the wind resistance requirements in hurricane-prone regions.

"While reflective roof coverings are becoming more widely used, they are not always the best option when considering energy cost and consumer preference," says Reed Hitchcock, ARMA executive vice president. "The use of a balanced

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whole building envelope approach will provide a much greater flexibility in colour selection and more choices when installing a new roof."

Energy efficiency is important for any building. When the roof is properly considered as part of the thermal envelope, there is a choice between insulation and reflectance, or a combination of both. Using more insulation reduces heat transfer from the roof and thus saves on air conditioning costs in the summer and heating costs in the winter. A reflective roof covering over ventilated attics can lower the attic temperature, but the energy savings may not be significant enough to drive choice.

"In addition to the energy efficiency aspects of asphalt shingles, there is an emerging trend in sustainability addressing end of life - shingle recycling is now available in most metropolitan areas," adds Hitchcock.

Sue Burkett, marketing leader residential roofing, at Owens Corning shares, "in addition to developing leading-edge performance products that meet market demands, manufacturers are also impacted by changing codes, assuring proper installation, including accurate nail placement is imperative for performance, especially in high wind conditions."

The American Society of Civil Engineers (ASCE) recently implemented changes to the wind requirements in ASCE-7 which is the standard for building engineering to meet code criteria for wind, earthquakes, snow loads and other design criteria. ASCE 7 was updated in 2010. In general, manufacturers continue to focus on product developments that meet or exceed market demand or regulatory requirements.

But wind events aren't the only challenge Mother Nature throws at roofing materials. In 2012, there were more than 3,000 hail events in the United States. Damage caused by hail can be noticed immediately or can manifest as latent damage, causing premature deterioration of shingles. Developing a robust line of impact-resistant products, compliant with product impact test standards for use in diverse areas of the country, is another record

With a growing consumer-driven focus on performance, pressure to respond with new testing and proven compliance continues to be a priority of manufacturers in the industry," says Emily Cavanagh, director of shingles and new product development at GAF.

The effect of changing energy efficiency and sustainability regulations seeking increased reflectance, code requirements driving increased wind performance and consumer driven requirements for greater weather resistance are impacting shingle design and development trends.

Cavanagh continues: "We believe that delivering property owner's products that not only provide beauty and add value to their homes, but also meet increasing performance expectations, will assure asphalt shingles continue to be the number one residential roofing choice in North America.

Asphalt roofing systems not only offer superb colours and beautiful styles, but they also deliver unparalleled durability, reliability and performance. Asphalt roofing systems provide long-life expectancy and require little to no maintenance, making them cost-effective. CB

For more information about asphalt shingles, visit the ARMA website at www.asphaltroofing.org.