Columbia Roofing provides extra protection with LeakBarrier®
Ice and Water Armor

Ice Dams? Not a Problem!

As the president of Columbia Roofing Inc., Mike Christopolis takes pride in its reputation for the highest standards in workmanship and customer service. One way that he has raised the standards of quality for the roofing systems that he installs is to provide extra protection against ice dams to many of the residential homes in his area.

Columbia Roofing Inc. is located in Elkridge, Maryland, a small town between the cities of Baltimore and Columbia. The latter is a large “planned community” originally conceived and developed in the 1960s and 1970s. Mike Christopolis has been installing roofs in Columbia since the early 1970’s during the creation and development of Columbia and the surrounding communities, hence the name of the company.

Since Columbia Roofing was incorporated in 1981, it has grown from a small one-truck shop to a multi-service company with 40 trucks and 50 employees. Christopolis has established lasting relationships with some of the area’s largest homebuilders and property managers as well as thousands of area homeowners, and these relationships continue today.

The Trouble with Snow, Water and Ice

Unlike Pennsylvania and other regions to the north, Howard County is not usually buried in snow throughout the winter. Nonetheless, it gets its share of snowfall and freezing temperatures. In an average year, snowfall of one inch or more is recorded on 11.8 days with an average annual snowfall of 17.5 inches.

Of course, some years are worse than others.

What’s especially troublesome about this region is that temperatures often rise above freezing during the day, allowing some snow to melt and flow to the valleys and eaves of roofing systems, and then that same water freezes overnight. The resulting ice dams are disastrous to the shingles, roof decks, insulations and eventually also the inside walls of a home.

According to Christopolis, ice dams are common in older homes, because they lack the proper ventilation (soffits) to prevent heat from the home from melting the snow on the roof. When a warm roof melts the snow, the water
runs down and ponds at the colder eaves, where it refreezes. The result is an ice dam, which subsequently forces the melting snow to back up under the shingles. Serious water damage can result when water runs down into the attic and between walls.

The Purpose of Ice and Water Armor
Christopolis says he is getting more and more requests for the installation of MS300 Ice and Water Armor, one of the LeakBarrier products manufactured by Tarco. He will typically use 6 to 10 rolls on the average home (each roll contains about 100 square feet, or one square of underlayment). He uses MS300 to cover eaves and valleys, where ice dams are most likely to occur. “If a customer has ever had leaks in the past that were due to ice dams then they are very emphatic about asking for MS300,” says Christopolis. “I wish everyone used it because then I would get a lot less call backs.”

Another factor driving the demand for MS300 is the International Building Code, which now mandates the use of an underlayment for new construction in certain climates. However, Christopolis says it goes beyond the code requirements. “Customers are asking for it because they don’t want to be bothered with leaks. The older homes in this area are very susceptible to ice dams because of the way they were built,” he says. “For older homes, MS300 is essential; for newer homes, it is a precaution. It’s foolish not to use it in either case.”

New Technology Solves Old Problem
Up until the past decade or so, the only other protective barrier a homeowner could install under a roof covering was tarpaper, or asphalt-impregnated felt. An improvement came from a blend of styrene-butadiene-styrene (SBS) and asphalt, which could be made into an SBS-based membrane.

Tarco’s LeakBarrier Ice and Water Armor is a premium self-adhering underlayment with a peelable release film. It is made from superior-quality asphalt sources. The MS300 version of this product has a mineral surface.

Premium self-adhering underlayment doesn’t replace felt but it adds another level of protection at vulnerable roof areas such as ridge peaks, valleys and edges—particularly roof edges above rain gutters.

The blend of SBS and asphalt is something like spaghetti and meatballs mixed with sauce. The butadiene is the “spaghetti,” and the “meatballs” are styrene. Strands of rubbery butadiene run between spheres of styrene, giving the membrane rubber-like properties. The “sauce” is the asphalt, which imparts water-resistance to the membrane. This entire mixture is spread upon a sturdy fiberglass mat, which can be compared to the dinner plate.

The thick, mostly-asphalt membrane resists water yet is easy to apply. The tough fiberglass mat gives strength against rips and tears and makes it easy to handle the membrane. The SBS polymer soaks up asphalt like a sponge, fixes its shape and form, and imparts flexibility and resilience to the membrane. As a result, the membrane is self-sealing around nails. Imagine driving a nail through a rubber ball. The flexible membrane pushes tightly against the nails, blocking moisture from penetrating.

“Just Right” for Homeowner and Roofer Alike
Christopolis says he prefers Tarco’s MS300 because it has good adhesion but is also forgiving. “Sometimes the roofer has to make minor adjustments in the position. The underlayment shouldn’t be too sticky, like some products on the market, but it should provide good adhesion. MS300 is just right,” he explains. “The customers like it and my men find this product easy to handle,” he says. “The peel-and-stick film requires no extra tools for installation and the mineral surface provides good traction for the men on the roof.”

Christopolis says that his customers would let him know if there were any problems and he has not received any complaints since he started using MS300 about two years ago. “Thanks to MS300, there are a lot fewer leaky roofs in the State of Maryland,” he concludes.

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