

Roof Coating Manufacturers: The Future Looks Bright for White Coatings

Jane Martinsons, MR Editor

Roof coating manufacturers are currently seeing a major shift in the coating marketplace toward reflective or white coatings, otherwise known as cool roof coatings.

“We’re seeing a lot of white coatings, white minerals, and white membranes,” says Joseph W. Mellott, director of business development, The Garland Company, Inc., Cleveland, OH. Mellott notes that although the primary markets for white coatings are in warmer regions of the country, cool-climate cities such as Chicago and New York City continue to turn to reflective-roof coverings for their perceived long-term energy efficiency.

Van Ripps, president of Palmer Asphalt Company, Bayonne, NJ, also sees the market growing. For him, the biggest markets for white coatings are in warmer regions of the country such as the Southwest and West, but he also notes that the market continues to expand as government building reroofing projects require white roofs and as homeowners look to take advantage of government rebates on cool roof coatings.

Market Shakeout

As a result of the market shift to white colored roofing options, consumers are trending away from asphalt-based roofing materials and systems, including built-up roofing (BUR) and modified bitumen roofing, says Jim Arnold, PE, RRO, National Systems Manager, Polyglass USA, Inc., Deerfield Beach, FL.

“We have seen a big growth in white coatings every year since 2008,” Arnold says, “and aluminum coatings are in continued decline. You get reflectivity with aluminum, but with white, you get both reflectivity and emissivity, so white is perceived as better”—even in cities, such as Chicago and New York City, where the aluminum coating market once thrived, he says.

“Modified bituminous systems and flashing details, which were traditionally aluminum coated, also are in decline,” Arnold says, “and white coatings also are taking away market share from aluminum-coated smooth-surface APP membranes. Add in the volatile organic compound (VOC) challenges and the aluminum coatings market will probably never return. This is a permanent trend.”

Plastic cements are taking a hit in the marketplace as well, Arnold adds. “First, a lot of premolded and prefabricated rooftop accessories, which have been traditionally three-coursed or buttered in

with plastic cement or roof cement, are now being taken over by preformed metal, plastic, and rubber accessories.”

Secondly, he adds, liquid-applied flashing materials are “getting into that space of using mastics” because they are considered more durable, and easier and faster to apply. “You don’t need to bring the buckets; just bring the preformed accessory and you’re done,” Arnold says.

Further driving the market shift is that reflective coating applications save on labor costs.

“The singly-ply market is growing and taking market share from both modified bitumen and BUR systems,” says Mellott. “While putting down a wider sheet in a single application may have an initial cost advantage over these systems, modified systems and traditional BUR systems still have a place in the market, providing excellent solutions. Ultimately the customer needs to balance all factors including initial cost, life-cycle cost, and ancillary functions such as reflectivity. Modified and BUR installations are capturing some of the market back through the use of white elastomeric liquid coatings, both in new construction and restoration.”

Ripps agrees that the construction industry is trending away from BUR applications because of its higher labor costs. He says that, although his company does not produce these products, “many in the market feel that they are not environmentally friendly or they may give off an odor, despite the fact that these products are now sold in low-odor formulations and are a time-tested quality product.”

Durability Required

All of the manufacturers who spoke to *MR* agree that, in a sluggish economy, consumers have shown far more interest in preserving and restoring their roofs than in reroofing or even recycling roofing materials. This has sparked talk, at least among Mellott’s clients, of roof life-cycle performance and life-cycle cost.

“Customers are interested in initial cost, but also in how long the product is going to last and what the cost is to maintain it,” Mellott says. “In this economy, people want things to last longer. There is a dichotomy [among customers] between wanting to save money today and wanting the roof to last longer.”

Consequently, “we see real growth for far more durable products and restoration products—things that extend the life cycle of a building,” Mellott



Quest Construction Products (QCP)—United Coating



The Garland Company



Tremco

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—Joe Mellott, The Garland Company

states. “More people are discussing life-cycle performance, looking at cradle-to-cradle performance, and coming up with 40- to 50-year plans for their roofing systems and building components.”

Ripps, however, believes that the average contractor is unaware of life-cycle costing and says that most contractors do not explain the long-term benefits of products to clients (see “Common Mistakes in Selling Roof Maintenance,” p. 10). But they should. “The use of coatings extends the life of roof systems when that system has not yet totally failed,” said Ripps. “The use of cool roof coatings is not a panacea for every roof, but the products can be used on a wide variety of virtually every roof substrate.”

Likewise, Arnold stresses that coating options provide a highly economical, restorative option for building owners wanting to get more life out of their roof. “It allows them, at a much lower cost and impact on their current operations, to retain a serviceable roof for the next 5–7 years. Recoating keeps a roof sustainable without reroofing the entire roof. You just coat and coat and coat. As long as your roof stays intact and leak-free, you can essentially coat forever,” he says.

Future Trends

Current research is focusing on developing coating products that yield higher values of performance and longevity, Ripps says. He notes that products are constantly being upgraded, so in a few years we likely will see roof coatings imbedded with energy-producing solar cells, a plethora of color options for reflectivity, and surfaces with greater resistance to dirt.

Meanwhile, Arnold predicts continued competition among four camps of systems: (a) acrylic-based, (b) polymethyl methacrylate (PMMA) liquid-applied roofing systems, (c) styrene-ethylene/butylene-styrene

(SEBS), and (d) urethanes. “It’s yet to be determined how this pans out,” says Arnold, who acknowledges that each system has its benefit and limitations.

“The industry has yet to produce the perfect roofing solution, making this an interesting business. All four camps are radically different technologies that require radically different [manufacturing] equipment,” Arnold says. “One of these could be the perfect solution, although it might not be the perfect solution on every single project.”

Ripps further notes that each of the different coating products—water-based acrylic, silicone, solvent-based white, and urethane—has different features and benefits, as well as different price points. Mellott, however, predicts that customers will continue to trend away from solvent-borne products due to issues with odor and VOC emission.

Beyond technology, labor costs will continue to play a big role in this market, resulting in more products that are easier to apply and use, Mellott says. He also predicts more attention will be paid to maintaining the R-value through insulation. “We are going to see people getting into improved life-cycle performance and improved R-value maintenance,” he said.

Regardless of the future direction of the coatings market, both Mellott and Ripps warn contractors against overselling reflectance to customers. “One of the consequences of growth in products is that people tend to overpromise and under-deliver the material they provide,” Ripps says.

Contractors should remain cautious, he adds. “They need to remember that if the roof that they apply becomes unacceptable to the customer, the customer only knows the contractor’s name and that is whom they blame.”