Schools and Public Buildings Turning to Coating Solutions

By Bob Brenk President Aldo Products Company, Inc.

Roof replacement remains a very expensive proposition for schools and public facilities. Local municipalities are struggling to balance budgets and adequately maintain facilities, and managers are being asked to identify solutions that are "green" and more environmentally sensitive.

Several school systems in the Carolinas and Georgia have turned to elastomeric coatings for restoration of aging roof systems and in doing so are realizing long term solutions while addressing critical cost and environmental considerations. Elastomeric coatings can extend the useful life of the roof systems for 10 years or more, and typically save 50 – 70% versus the cost of installing a new metal roof system. Additionally, an installed coating system is itself sustainable and renewable.

Customized reflective color was used for this roof

Environmental benefits are twofold. First, a coating solution avoids roof tear off waste added to landfills. Any product that reduces the amount of material going into limited landfill space is a benefit to the community. Secondly, many schools and public buildings are turning to reflective coatings because such coatings reduce cooling costs significantly. Reflective coatings decrease roof surface temperatures. Consequently less heat is transmitted into buildings, less strain exerted on the HVAC system, and less electricity required to cool the building.

Application process for roof coatings

While not all roofs will be considered candidates for elastomeric and reflective coatings, many will qualify. The roof system that is a target market for roof coating manufacturers is metal. As metal roofs age, the phenomenon of thermal shock (both seasonal and diurnal) stresses the system where roof metal panels overlap and fasteners are installed. The panel gaps will open up with the natural movement of metal expansion and contraction. Also, the neoprene rubber washers used with fasteners will simply disintegrate over time. The thermal cycling and resulting metal movement with allow the fasteners to easily back out, all the quicker once the washers are of no use.

Building owners are often unaware of deterioration of the roof system until leaks are prevalent within the facility. The roof system can be the epitome of "out of sight, out of mind." However, stained ceiling tiles can tell the real story of what is going on with the roof system.

Information on "cool roofs" and the benefits of reflective roof coatings can be found through resources like the US Department of Energy, the Florida Solar Energy Center, and the Reflective Roof Coatings Institute (RRCI). Cool roofs while typically white, come in other colors as well according to the Energy Department and can help building owners save money while protecting the environment. See the report, http://www1.eere.energy.gov/femp/pdfs/coolroofguide.pdf.

The Florida Solar Center reported a 25% average reduction in summer space cooling energy with a range of savings of 13-48% for the building owners monitored. For more information on this see http://www.fsec.ucf.edu/en/publications/pdf/FSEC-CR-964-97.pdf. The Reflective Roof Coatings Institute offers additional tools and resources for understanding the benefits of reflective coatings including summaries of rebate programs, reports and whitepapers on changing building technologies and environmental requirements potentially impacting school and building facility managers. For information see http://www.therrci.org/Reflective_Roof_WhitePapers.asp.

Elastomeric coatings have been around for decades. The coatings produced today are much different from what was once thought of as "roof paint". Current research and development practices include product testing in accordance with ASTM standards and certification from third party entities including the Cool Roof Rating Council (www.coolroofs.org).Additionally, in many jurisdictions the use of reflective coatings may be eligible for certain utility sponsored rebate programs. These programs are expected to expand as the advantages of coatings become more widely understood within the public utility community.

In summary, proven performance, cost and environmental benefits of elastomeric coatings have consultants and facilities managers increasingly turning to coatings as an alternative to roof replacement. Market data suggeststhat this trend will also continue given product advances, sustainability, cost management, and the advantage of restoring a roof system rather than discarding it. The future for elastomeric, reflective coatings is indeed bright.

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About Aldo Products Company, Inc.

Bob Brenk is the President of Aldo Products Company, Inc., an elastomeric coating and adhesive manufacturer based in Kannapolis, North Carolina. Aldo Products Company has been manufacturing high quality roof and intumescent coatings for building owners and contractors for more than 30 years. Based in Kannapolis, NC, Aldo serves customers throughout the United States.

Bob Brenk President of Aldo Products Inc.

Aldo offers **a complete line of elastomeric coatings, primers and sealants for a variety of roof systems. The Aldo team of**

laboratory, plant, and sales consultants supports contractors, consultants, building owners and managers with economical and enduring solutions to aging roof systems and systems in need of more energy efficient applications. For more information on Aldo Products Company, visit www.aldoproducts.com or call 1-800-474-6019.