

Nile's West High School's Field House Wins With Special Adhesive Tape



Safety and comfort are high priorities for any school. For the Niles West High School located in the suburban village of Skokie, Ill., safety was compromised when the fairly new track and field house, where vigorous athletics take place, consisted of a wet floor. Caused by the massive standing-seam, barrel-curved metal roof leaking, the school needed to find a quick solution to the problem. In response, school officials turned to the roofing experts at Hutchinson Design Group, a Barrington, Ill.-based architectural firm, for their expertise.

Niles West High School of District 219 is one of two public high schools in the Niles Township school system serving the Chicago suburbs of Niles, Skokie, Lincolnwood, and Morton Grove. The Niles West Wolves have been heralded for their indoor track and field program producing record-breaking athletes in the 100-meter dash, triple jump and the 55-meter low hurdles. Many dedicated athletes, coaches and spectators who make up the Wolves' indoor track and field community utilize the school's field house. As a result, it needed to be dry and safe at all times.

Tom Varga, senior roof consultant for Hutchinson Design Group, who aided in roof restoration efforts, believed with the right product and contractor the roof could be restored during the summer break. Concerns, however, arose due to the large size of the roof, the short length of the summer break and the promise of rain and heat delays. This meant there was not a lot of time to organize the job, make the repairs and re-open the field house. Furthermore, a reliable product that could be put down quickly and consistently and would avoid further damage to the venue, had to be used.

"We had a serious situation on our hands and knew we had to address it quickly and efficiently while being budget conscious," said Jerzy Fieminski, building facility manager for the Niles West school district. "The field house is a newer facility and we didn't want to compromise the integrity of the structure."



Adhesive Tape

Fiemienski, who was familiar with the benefits of EternaBond products, recommended EternaBond RoofSeal tape for use on the roof.

"Based on the district's interest in RoofSeal, we did our research and collectively decided EternaBond was the best alternative," Varga said.

Quickly developing a reputation as one of the best solutions for leak repairs and roof restoration, EternaBond tapes are frequently used by professional roof repair specialists due to the fact that they can be used on virtually all roof types. Like all EternaBond tapes, RoofSeal utilizes a special adhesive called a "MicroSealant." With a specialized UV stable backing combined with MicroSealant technology, RoofSeal has a life expectancy of up to 35 years, a necessity amid the harsh weather and sunlight conditions of Chicago.

Varga presented several qualified roofing contractors, with the professionals at Harvey, Ill.-based **Knickerbocker Roofing Co. Inc.** winning the bid to handle the roof restoration. To prepare for the massive barrel-shaped roof restoration, the Knickerbocker team had to power-wash the roof area, a difficult task given the slope of the roof.

"The barrel roof provided safety challenges requiring scaffolding and tie offs," said Mark Moran, project manager with **Knickerbocker**.

Once the roof area was properly prepared, the initial three-member crew had to contend with the summer heat. At one hot stretch of the summer, the metal roof was too hot to work on.



Adhesive Tape

Yet the heat and slope of the building were not deterrents in using the RoofSeal. EternaBond's MicroSealant has a built-in primer that allows RoofSeal to fuse to the surface on which it is being installed. Perfect for repairing and reseaming all roofs regardless of the material, RoofSeal makes a permanent, watertight seal. With an elongation factor greater than 700 percent, RoofSeal expands, contracts and flexes with the roof or repaired area in all conditions. In addition, RoofSeal stays flexible in temperatures as low as -70 degrees Fahrenheit, yet remains structurally stable up to 250 degrees on vertical surfaces and 350 degrees on level surfaces, making it ideal for all geographical locations and roof types. With Chicago experiencing all weather extremes from intense cold to intense heat, with wind, rain, hail, sleet, ice and snow all mixed in between, RoofSeal was the perfect choice. It is also non-hydroscopic, so ponding water is not a problem.

"Normally a restoration like this would be done with EternaBond WebSeal and a roof coating," said Chris Margarites, president of EternaBond. "WebSeal is our MicroSealant tape with a woven fabric backing which has no memory so it will conform to virtually any shape."

Knickerbocker and Hutchinson chose RoofSeal to avoid the need for a roof coating, which shortened the application time and saved labor dollars.

"The school chose gray RoofSeal tape that was 8 inches wide," said Margarites. "After covering the one 1-high standing seam, RoofSeal provided three inches of coverage on each side of the seam."

"In addition to the standing seams, there were transverse seams and existing curbs that required taping," Moran said. "Luckily, these transitions were easily integrated with the roof seams."



Adhesive Tape

The **Knickerbocker** team had to devise a process for installing the RoofSeal tape over the compound dimensions of the standing seams and the curve of the barrel shaped roof. Once the process of installing RoofSeal was perfected, restoring the roof was relatively simple and time effective.

The process began with a two-man crew rolling out the 50-foot length of EternaBond repair tape, folding it in half along the lengthwise split in the release liner and placing the fold against the standing seam. Then, with one of the crew at each end holding the length of tape taught, one of the men started to remove the release liner from the half that was facing down, and rubbed the tape to activate the MicroSealant bonding process. Now with one end securely adhered to the roof, and the second man still pulling the tape taught, the first man was able to remove the rest of the release liner from the side of the EternaBond tape that was facing the roof, rubbing and bonding the rest of the 50-foot length to the roof surface. When they were done, one half of the tape was adhered to the roof and they were free to move to the next seam and repeat the process. A third mechanic now moved in to finish the installation. The mechanic removed the second half of the release liner, carefully folded the EternaBond up and over the standing seam and back down to the roof and smoothed it with his hand to affix it to the surface. Any bubbles caused by air being trapped under the tape were pierced and folded flat and smooth.

The final step in the process came when the third mechanic used a hand-held roofing roller to apply pressure to the tape, activating the bonding process. Once the **Knickerbocker Roofing** team had their system perfected, it took less than 30 minutes to seal 50 feet of curved, standing seam.

The representative of Eternabond's manufacturer, All Weather Products Inc., supplied **Knickerbocker** with a unique version of RoofSeal tape that was reverse rolled with the MicroSealant adhesive on the outside. Working with Michael Bafia, field manager for **Knickerbocker**, Eternabond also developed a system that slit the release liner down the center lengthwise so the release liner could be removed one half at a time and offer precise placement of the tape as described above.

"One of the many benefits of using Eternabond's RoofSeal is that it can be customized for the specific application," commented Fred Creed, CPMR, of All Weather Products. "The product's flexibility made the installation easier and more efficient."

Not only was the application unique, the project was exceptional as over 30,000 linear feet of EternaBond was used. "The field house is our largest installation of RoofSeal in a single project," Moran said. "The size of the project required an innovative approach to the installation process and flexibility to try new processes to find the most efficient and effective method for completing the work."

"We're so pleased with the results," Fieminski said. "The EternaBond installation saved the district money by not having to replace the entire roof and we were able to add years to the life of the roof." Moran agreed, "Utilizing Eternabond's RoofSeal provided roof restoration for a fraction of the cost that a tear-off and replacement would have been while providing a unique, long-term restoration solution."