SIKA AT WORK
JASPER HIGH SCHOOL
JASPER, ARKANSAS

RhinoBond® ROOF SYSTEM USING
60 MIL Sarnafil® S327 MEMBRANE IN WHITE

Sarnafil®

BUILDING TRUST

Sika®

Sarnafil RhinoBond ROOF TREASURED BY JASPER "PIRATES"

When your team is named the Pirates, you aren't likely to take any gruff from anyone or anything. That's why the Jasper School District in Arkansas decided to go for only the best when they wanted to replace the 25-year-old roof on Jasper High School. "The roof, which covered three buildings that were eventually joined together, had multiple leaks," said Jeff Cantrell, superintendent of Jasper School District. "We wanted to find a cost-effective roof that wouldn't leak and would have a long life."

"Because of the various additions to the school, there was a mixture of different roofing systems on the building," explained Craig Boone, president of Architecture Plus of Fort Smith, Arkansas. "There was a modified bitumen built-up roof which had some polyurethane foam applied in some areas, and a standing seam metal roof. We needed a roofing system that could easily work with these different materials, and also support the Department of Education's requirement for ½-inch slope on any BUR and 1 inch slope on metal."

Brian Kirk, owner of Freedom Roofing Solutions, Inc. of Vilonia, Arkansas, knew just the right roof for the high school: the Sarnafil RhinoBond system. This system uses Sarnafil's proven PVC membrane, which is attached using RhinoBond's advanced induction welding technology. RhinoBond secures the membrane directly to specially coated plates that are used to secure the insulation to the deck, all without penetrating the roofing membrane. The result is a roofing system with improved wind performance that requires 25 to 50 percent fewer fasteners and plates.

In addition, since the fastening points are spread out across the roof deck in a grid pattern rather than concentrated in the seams of the membrane, the wind uplift load is distributed more evenly. The result is less point loading on each fastener, enabling the system to achieve higher wind ratings with fewer fasteners.

RhinoBond also offered an advantage on the metal roof retrofit. Because RhinoBond eliminates the traditional in-seam fastening, the membrane seams do not have to be aligned exactly over the purlins. This eliminates the need for specialty width sheets trimmed to match the purlin spacing, which simplifies installation and eliminates waste.

"I had used RhinoBond before on smaller installations, so I knew how easy it was to install," Kirk remarked. "As for Sarnafil, we are big fans of the performance and longevity of this system. I sometimes joke that if we take off our shirts you'll find Sarnafil tattoos on our backs."

PROJECT
Jasper High School
Jasper, Arkansas

OWNER
Jasper School District

ROOFING CONTRACTOR
Freedom Roofing Solutions, Inc.
Vilonia, Arkansas

ARCHITECT
Architecture Plus
Fort Smith, Arkansas

ROOFING SYSTEM
RhinoBond Roof System using 60 mil Sarnafil S327 EnergySmart membrane in white

PROJECT SIZE
40,000 square feet

COMPLETED
July, 2015

NO SHIVERING TIMBERS

Installation involved tearing off the built-up roof, replacing the decking, filling in some skylights, putting on a tapered insulation system and also filling the flutes of the metal roof with recovery board. Then the Sarnafil membrane was installed with RhinoBond induction welding. "This was our first large RhinoBond installation and we loved it!" Kirk commented. "We love the ease of the installation and how quickly we were able to install the membrane. This was especially true with the flute-filled metal roof – we were rocking and rolling through that!"

Boone was impressed with not only the ease of installation with RhinoBond, but also with the versatility of the Sarnafil membrane. "This is the first time I used one membrane to cover three components – the BUR, the metal roof, and flashing of some vertical walls," he said. "I was a little skeptical about this – especially with the flute-filled metal portion. But the roof is solid."

The job was not without challenges, however. One was the summer heat, including days when the temperature went over 100 degrees. "We worked as early as possible – sometimes at 4 a.m. – to avoid the hottest portion of the day," Kirk stated.

There were also two long interior gutters and interior drains that were replaced, as well as downspouts, fascia and soffits. In addition, much of the HVAC and electrical systems were being renovated, and the HVAC equipment had not been braced correctly when they were installed. "We had to remove the units, get inside and brace the decking up, and then flash everything when the units were reinstalled," Kirk said. "Fortunately, our job superintendent Oscar Jimenez did a great job coordinating everything with the subcontractors and the school district." Kirk added the Sika personnel also helped with their inspections.

"Freedom Roofing and Architecture Plus did a great job correcting past problems," Cantrell commented. "They engineered a solution for every area of the roof where water could get trapped."

"Freedom Roofing did a great job as far as their craftsmanship and the roof looks just beautiful," Boone said. "In fact, I trust Freedom Roofing so much I'm having them reroof my house."

A ROOF TO TREASURE

Despite some very heavy downpours since it was installed, Cantrell says the new roof is "performing flawlessly" and he expects it to continue to perform well in the future. "We are very happy with the results and with Freedom Roofing," he explained. "These folks come in and do exactly what they say they will do."

"I was very impressed with this installation and would not hesitate to recommend the Sarnafil RhinoBond system to another client," Boone said. "This is unusual for me because I was not a big PVC membrane fan. But I'm impressed with how Sika stands behind their roofs."

Sounds like a roof even a pirate could love.

JASPER HIGH SCHOOL

WHO WE ARE
The commercial roofing industry has relied on thermoplastic single-ply membranes from Sika for more than 50 years to achieve sustainable roofing and waterproofing solutions.

Sika is a globally active specialty chemicals company. Sika supplies the building and construction industry as well as manufacturing industries (automotive, bus, truck, rail, solar and wind power plants, facades). Sika is a leader in processing materials used in sealing, bonding, damping, reinforcing and protecting load-bearing structures. Sika's product lines feature high-quality concrete admixtures, specialty mortars, sealants and adhesives, damping and reinforcing materials, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.

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