

Sure-White EPDM Roofing Systems

CASE STUDY

Re-Roofing of the Indiana Farmers Coliseum



JOB PROFILE

PROJECT LOCATION: Indianapolis, IN

CARLISLE APPLICATOR: South Central Roofing, Inc.

ROOFING SYSTEM: Carlisle Sure-White EPDM

INSTALLATION:

- » Concrete deck
- » 1.5" 20 psi InsulBase® polyiso fully adhered using Flexible FAST Dual Tank Adhesive
- » 2.5" 25 psi SecurShield® polyiso insulation fully adhered using Flexible FAST™ Dual Tank Adhesive
- » 090 Sure-White EPDM (10' sheets) w/ 6" Factory-Applied Tape™ fully adhered using 90-8-30A bonding adhesive

About the Project

The Indiana Farmers Coliseum is a one-of-a-kind multi-purpose sports and entertainment facility located at the Indiana State Fairgrounds & Event Center, home to more than 150 sporting and entertainment events each year.

Built in 1939 as the Livestock Pavilion, the Coliseum ranked among the largest and grandest structures of its time and type. It has been host to thousands of events, from National Livestock Shows, the ABA Indiana Pacers, and their 3 Championships in 4 years in the early 1970's, Hockey, and the only Indiana performance of the Beatles in 1964.

With its history intact, the Indiana Farmers Coliseum underwent a \$53 million renovation in 2012, modernizing the iconic Indianapolis venue, and paving the way for a new era of sports and entertainment. Indiana Farmers Coliseum is home to the ECHL's Indy Fuel and the NCAA IUPUI Jaguars. The Indiana Farmers Coliseum hosts over 150 events and over 1 million guests annually with events ranging from professional sports, live music, family shows, Auto Auctions, and special events.



In early 2020, the Indiana State Fair Commission embarked upon a re-reroofing project for the 120,000 square foot Indiana Farmers Coliseum, selecting South Central Roofing, Inc., a Carlisle Authorized Applicator, for the installlation. South Central Roofing was selected because of their experience in the commercial roofing industry and the quality of work that they bring to every job. The team at South Central Roofing recognized that the project would present some challenges due to the 5:12 roof slope and heights ranging from 50-100 feet for the entire 120' length of the building. Additionally, at its highest point, the building has a flat roof portion with difficult flashing work for 14 individual penetrations supporting the Indiana State Fair sign. South Central Roofing also needed to custom fabricate penetration pockets for 84 steel stanchions anchored to the concrete deck and penetrate the roof within the sloped portions to support snow retention bars running the length of the building.

The Solution

The Commission engaged Martin Riley Architects as the architect/ specifier. The Indiana State Fair Commission preferred a white roof but did not want TPO or PVC roofing membrane because the 5:12 slope would make the thermoplastic membrane slick to walk on in rain or snow. Familiar with the excellence and longevity of Carlisle materials, the architect recommended Carlisle's Sure-White EPDM to meet the project requirements and the Commission's wishes for a white roof.

In August of 2020, the team went to work on the challenging installation process. Because the roof is 50' tall at the low end, all tear off was craned to the ground. South Central Roofing then installed one layer of Carlisle's InsulBase Polyiso Insulation and one layer of SecurShield Polyiso Insulation directly to the concrete deck using Flexible FAST Dual Tank Adhesive. A crew of 8 carried the roll of Sure-White EPDM Membrane and fed the material under each snow retention bar all the way to the top of the slope. The EPDM was then installed over the top layer of insulation using Carlisle's 90-8-30A Bonding Adhesive. Carlisle's Sure-White EPDM Membrane with Factory-Applied Tape Seam Technology allowed South Central Roofing to easily seam together adjacent membrane panels resulting in a watertight seal with no entrapped air bubbles. The crew was able to complete 2,000 square feet, roughly two rolls of membrane a day.

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Results

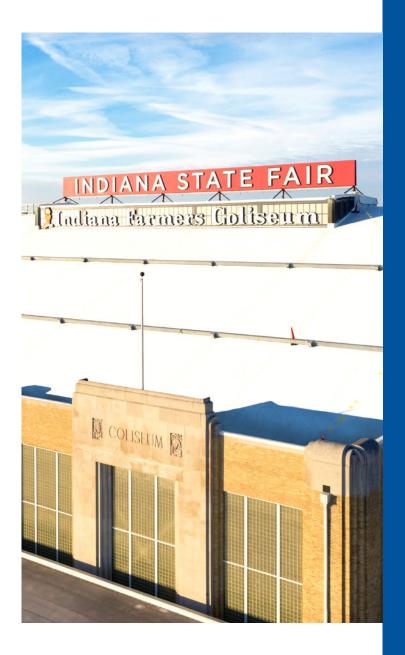
By December 2020, a completely new, reliable roof was installed on the Indiana Farmers Coliseum. Carlisle's Sure-White EPDM satisfied the Commission's desire to have a white roof while also offering industry-leading resistance to outdoor weathering and hail, as well as a 30-year record of proven performance.

The building was re-roofed with a dimensionally stable, heat-resistant membrane that stays flexible down to -40°F. The membrane choice offered the additional benefits of reducing air conditioning costs in warm weather and being an environmentally conscious choice. According to a Life Cycle Assessment using EPA's TRACI model, an analysis of EPDM, TPO, PVC and Modified-Bitumen showed that EPDM had the lowest global warming potential, lowest acid rain impact, and lowest contribution to smog.

The Indiana State Fair Commission was pleased that the challenging project had been completed according to specifications utilizing durable, high-performance, UL and FM approved roofing materials with pleasing aesthetics and exceptional warranty coverage by the highly-skilled team at South Central Roofing.

About Carlisle SynTec Systems

Carlisle SynTec Systems has been the leader in the commercial single-ply roofing industry for more than 60 years. Carlisle provides superior roofing systems through a select network of manufacturer's representatives, distributors, and applicators. Carlisle's innovative product offerings include Sure-Seal® EPDM, Sure-Weld® TPO, Sure-Flex™ PVC, and FleeceBACK® membranes. The company also manufactures insulation, adhesives, primers, and membrane cleaners. In addition, Carlisle provides the building industry with coatings, sealants, vegetated roof components, skylights, pavers, and edge metal.



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About South Central Roofing, Inc.

South Central Roofing, Inc. provides high quality roofing solutions to Commercial, Residential, Institutional, and Architectural customers throughout Indiana. Locally owned and operated for over 20 years, South Central Roofing has been a Carlisle Authorized Applicator since 2003. They have installed more than 1.8 million square feet of Carlisle warranted membrane. Having achieved more than 100 "Perfect 10s", or walk-off inspections, South Central Roofing is a Carlisle Hall of Fame - Centurion Applicator. With a mission to provide the highest-quality and cost-efficient work in the roofing and sheet metal fields, the company has also received the ABC Supplier Customer Appreciation Bronze Award and Beacon Hercules Award.

