



PROJECT PROFILE

Application/Building Type: Stadium Retractable Roof

Project Name: Marlins Park

Location: Miami, Florida

Contractor: PetersenDean Roofing and Solar Systems, Inc.

Featured Products: USG Securock® Brand Gypsum-Fiber Roof Board

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USG SECUROCK® BRAND HITS IT OUT OF THE PARK FOR MIAMI MARLINS STADIUM

With an eye on performance, aesthetics, sustainable design and the fan experience, Miami-Dade County and the Florida Marlins had their bases covered when their new ballpark opened for the 2012 season.

Performance expectations were high—literally—for the new Marlins Park, especially when it came to the stadium's retractable roof. Consisting of three metal-decked operable panels, the lower east and west panels cover the stands while the highest elevated center panel rises 200 feet over second base to allow for pop flies.

That elevation puts the roof in one of the area's highest wind zones, requiring the assembly to withstand 140-mile-per-hour winds. The roof system includes 18- and 20-gauge metal steel decking with 11-foot joist spacing. Carlisle HP-H Polyiso insulation board, 2.0" thick, and 5/8" USG Securock® Brand Gypsum-Fiber Roof Board were mechanically fastened to the decking.

A 60-mil Carlisle Sure-Weld® TPO membrane was then fully adhered to the USG Securock Gypsum-Fiber Roof Board. "The building's elevation, design and the owner's plans for a Factory Mutual Global insured property, combined with the stringent Miami-Dade County and UL

Class A building criteria, all drove the wind-uplift design pressure," said a representative from PetersenDean, the park's roofing contractor. "There are very high uplift requirements with this application. Yet at the time drawings were prepared, there wasn't a system yet approved in Miami-Dade County to meet the stadium's requirements."

That changed when United States Gypsum Company and Carlisle SynTec stepped up to bat to perform extensive testing for a USG Securock roof board and Carlisle membrane assembly.

"USG Securock Gypsum-Fiber Roof Board and Carlisle far exceeded the building's performance requirements. The products came out on top. No one else could meet both the wind-uplift and Class A fire test requirements," said Bernie Abrami, manufacturer's representative with ProRep for USG Securock® Brand and Carlisle. "The superior compressive strength of USG Securock also resists membrane puncture from flying debris during south Florida's severe weather."

USG Securock Gypsum-Fiber Roof Board is fire resistant and ideal for use in all types of commercial low-slope

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Bernie Abrami
Manufacturer's
Representative ProRep for
USG Securock® Brand and
Carlisle SynTec Systems



roofing systems. The board is engineered to provide superior wind-uplift performance for a wide variety of roof assemblies. Its fiber-reinforced, uniform composition gives the panel strength and water resistance through to the core.

“We didn’t have any problems with blistering or bubbling that we do with other cover boards,” the PetersenDean representative noted. “It was easy to contour if we had inconsistencies in the deck substrate. And, because a single-ply membrane fully adheres to the smooth board surface, you get a nice-looking, uniform and clean finished product. The owner not only demanded a high-performance system, but also one that was pleasing to the eye.”

Sustainable design was another project priority. The Marlins Park planned to become the first LEED® Silver-certified retractable-roof baseball stadium. Green design initiatives included a goal that ultimately more than 20 percent of the project’s total material would come from recycled content.

USG Securock Gypsum-Fiber Roof Board is made from 95 percent recycled materials and has earned independent certification from Scientific Certification Systems for this achievement.

A Double Play: Fan and Contractor Comfort

The ballpark’s retractable roof provides relief from south Florida’s almost daily summer rains and high heat with average summer temperatures of 87°F—weather conditions that made a demanding project even more so for the contractors installing the roof.

“It’s hot and sweaty. The guys are tied up on cable for fall protection. Anything that makes moving materials easier and more efficient is a big benefit for comfort, safety and production,” Abrami said.

That was the experience the crew from PetersenDean, the nation’s third largest roofing contractor, had as they installed USG Securock. Because the gypsum-fiber roof board’s composition of gypsum and cellulose fibers does not require a glass-mat facer for strength, the panel is easy to handle with no itchiness.

“We like it because it’s user-friendly. The ease of working with USG Securock allowed us to install the board in a timely manner in a very difficult application where the sides and end of the roof are at a steep vertical slope of 18/12. Some of the roof panels are straight up and down,” the PetersenDean representative explained.

Another benefit project team members cited was the gypsum-fiber board’s low surface absorption, which increases the ability to predict adhesive usage and find additional material cost savings.

PetersenDean has installed approximately 2 million square feet of USG Securock roof board in projects in Florida and Puerto Rico during the past three years.

“We feel appreciated by USG and USG Securock,” the PetersenDean representative said. “We get great support that we don’t get with other providers. The quality of the material and service is what makes USG Securock our preferred roof board.”

The new Marlins Park is owned by Miami-Dade County. Architect Earl Santee of POPULOUS is one of the most experienced ballpark architects in the world, working on nearly 20 Major League Baseball parks.

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Representative from PetersenDean Roofing and Solar Systems, Inc.



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