

CarbonCast Insulated Wall Panels make a splash at Adventure Aquarium

Adventure Aquarium in Camden, N.J., can keep its underwater residents and visitors comfortable for less thanks to fully composite, carbon fiber reinforced, CarbonCast Insulated Wall Panels.

The CarbonCast exterior walls at the 90,000-square-foot Adventure Aquarium replace conventional shear reinforcement with non-corrosive, high-strength C-GRID carbon fiber grid. The 41-foot panels have three-inch outer and inner wythes enclosing four inches of foam insulation to deliver a healthy R-16. The high R value—provided at the same cost as conventional precast with R-12 or lower—significantly reduces Adventure Aquarium's heating and cooling costs, an important factor for delicate aquatic life.

C-GRID carbon fiber grid connects the inner and outer wythes of CarbonCast panels to yield a 100 percent structurally composite panel. And because carbon fiber is virtually non-conductive, the panels provide an even insulation profile; they do not have problems with hot spots or cold spots that can plague other wythe connection options.

The exterior of the panels have a steel form finish with reveals. The panels were painted with a whimsical aquatic scene for stunning visual appeal. The interior has a one-time pass with a steel trowel for a smoother finish.

The load bearing and non-load bearing panels were engineered to incorporate man doors, double doors and window openings.

As an alternative to conventional precast, tilt-up or masonry construction, CarbonCast Insulated Wall Panels install quickly and require only minimal space on the job site during erection. CarbonCast precast technology can also be found in architectural panels, double tees and a variety of multi-family residential applications.

The CarbonCast Insulated Wall Panels were fabricated and installed by AltusGroup founding member Oldcastle Precast, Building Systems Division.



Quick Facts

Project: Adventure Aquarium

Location: Camden, N.J.

Footprint: 90,000 sq. ft.

Type of CarbonCast: Shear Grid

CarbonCast surface area: 38,000 sq. ft.

Architectural Firm: Granary Associates, Philadelphia, Pa.

Lead GC Firm: Whiting-Turner Contracting Co., Towson, Md.

Precast Company: Oldcastle Precast, Morrisville, Pa.

About Altus Group
The first-ever national partnership of precast companies, AltusGroup was founded to develop, manufacture and market precast innovations such as the breakthrough CarbonCast™ line of products. With more than 20 structural and architectural locations in the United States, AltusGroup companies have an unparalleled national network of manufacturing plants, technical staff and sales personnel to ensure architects, engineers and contractors that they will get the help they need—and the quality and performance they expect—when they select C-GRID reinforced CarbonCast products.

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