

Job Story:

CHALLENGE:

Precor Inc. needed a fiber-free duct insulation that could provide thermal efficiency, condensation control and acoustic performance.

SOLUTION:

AP Armaflex insulation was chosen for condensation control and aesthetics.

Project:
Precor Inc. Manufacturing and Distribution Center

Location:
Whitsett, North Carolina

Objectives:
Provide thermal efficiency and noise and condensation control without introducing fibers.

Architect:
Lindsey Architecture

Contractor:
Superior Mechanical, Inc.



Armaflex Duct Insulation Selected for LEED®-CI Certified Precor Facility



The environmental sensibilities of the Pacific Northwest took root in an unlikely southern town when Precor Incorporated, one of the most respected brands in fitness equipment, decided to build a new manufacturing and distribution facility in North Carolina in 2008. The Seattle, Washington-based company would go on to build a 225,000 sq. ft. in the Rock Creek Center in Eastern Guilford County, NC, eventually obtaining GOLD certification under the Leadership in Energy & Environmental Design green building program for Commercial Interiors (LEED-CI).

Precor had decided that their new manufacturing facility would become LEED certified long before the company chose the small but strategically located town of Whitsett, NC.

“The decision to go for LEED is really just indicative of the whole corporate culture at Precor,” Rod Lindsey said. His firm, Lindsey Architecture, played an integral role in the design of the building and the LEED certification process. “Precor made it clear that whomever became part of this project would need to be on board for LEED,” added Lindsey.

It wasn't exactly business as usual for a NC commercial construction project, but despite the challenges, the project came in early and under budget.

Fiber-free, IAQ Top Priority

Armaflex provides an all-in-one solution for today's environmentally savvy building owners. These owners want duct insulation that provides thermal efficiency and acoustic performance – without introducing fibers into the airstream.

Maintaining healthy indoor air quality (IAQ) was certainly a top concern for Precor. Being in the business of healthy lifestyles, the company was cautious in its selection of air distribution products for the NC facility, making it clear they wanted to maintain a fiber-free environment. AP Armaflex was part of the Precor fiber-free plan.



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Several rooftop units provide conditioned outdoor air to the expansive factory and distribution portion of the facility. AP Armaflex lines the interior supply drops on each of these units to prevent condensation from forming inside the duct. Given the constant air velocities that these ducts are exposed to, closed-cell AP Armaflex made a particularly durable choice. Unlike fibrous duct liners which are fragile and must be encapsulated to prevent fibers from breaking free, AP Armaflex stands up to test velocities of 10,000 fpm of air flow without any evidence of cracking, flaking, peeling or delamination. Its elastomeric foam, closed-cell structure also makes it impervious to moisture – important wherever condensation is a concern. The duct liner should, in fact, last as long as the sheet metal duct itself, making it an ideal choice for facilities concerned with selection of sustainable materials.

AP Armaflex was also used to insulate the exterior of several runs of sheet metal duct in an interior meeting space within the Precor office area. The application was still for condensation control, but in this case AP Armaflex was specifically chosen because it provided the most aesthetically appealing solution to this area, which has an exposed ceiling. Armaflex' smooth, black surface blends in discreetly with the rest of the overhead components and surfaces.

“Armaflex also helps absorb some of the vibration from the duct,” said Scott Graham, Design Engineer and LEED AP for Superior Mechanical, the design build mechanical contractor chosen for the Precor project. Superior Mechanical also selected AP Armaflex for another LEED certified project in Guilford county – the LEED Platinum certified Proximity Hotel in Greensboro, NC.

Made in North Carolina

As a nice bonus for Precor (and North Carolina workers), the very insulation that was installed in the NC plant was manufactured just a few short miles away in Mebane, NC. That little bit of trivia caps off one of North Carolina's best stories about environmental stewardship and economic growth. The initiative may have been born in Seattle, but the seeds have been successfully planted in rural North Carolina.



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