

# Job Story:

## CHALLENGE:

Insulate complex and extensive 4-pipe HVAC system, plus domestic water piping, completing this major college renovation over the summer break.

## SOLUTION:

Speed up and simplify installation process by using AP/Armaflex Black LapSeal self-sealing tube insulation.

**Project:**  
Furman University Lakeside Housing and Residence Life Renovation

**Location:**  
Greenville, SC

**Engineering Firm:**  
Peritus Engineers & Associates, Inc.,  
Greenville, SC

**Owner:**  
Furman University

**Mechanical Contractor:**  
Waldrop Mechanical Services,  
Spartanburg, SC

**Insulation Contractor:**  
Dean Hall Insulation



## AP Armaflex Black LapSeal in Furman University Lakeside Housing



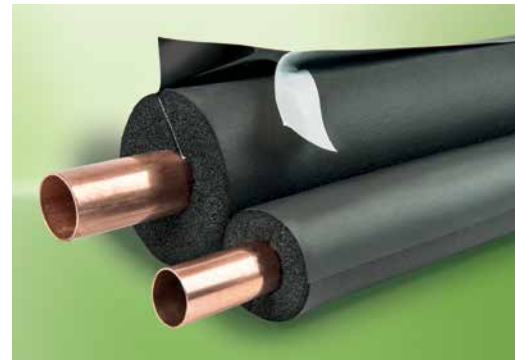
Time shows no mercy to contractors who take on projects like the Furman University Lakeside Housing and Residence Life renovation in Greenville, South Carolina. Every moment counts when all work from demolition to interior painting must be completed in less than 90 days during the summer break.

Waldrop Mechanical Services is accustomed to the unrelenting schedules of college projects. The South Carolina mechanical contractor knows that strict attention to details — like the time it takes to install one type of piping insulation over another — can truly impact the outcome of an entire renovation. At Furman, the decision to use AP Armaflex Black LapSeal self-sealing tube insulation played a critical role in bringing the Lakeside Housing project in on time.

### Why Black LapSeal?

Dean Hall Insulation partnered with Waldrop throughout this whirlwind renovation of four dormitories during Furman's summer break in 2016. Together, Waldrop and Dean Hall, have tackled many similarly challenging projects, often turning to Armaflex for piping insulation, especially for chilled water applications where its closed-cell structure is so effective at preventing condensation and moisture wicking. This was the first time, however, that either contractor had ever used the Black LapSeal product.

Scott Hall, owner of Dean Hall Insulation, suggested to Waldrop that the Furman job warranted the use of Black LapSeal to save time. The product allows a faster install by virtue of its unique closure system which eliminates the need for cutting and gluing the longitudinal seams of pipe insulation. A low-profile lap seal ensures that these seams stay closed and look neat.



# armacell®



In addition, the tube is pre-slit at an angle, providing more surface area on the self-sealing connection points. This added security grants welcome peace of mind when it comes to piping that is hidden behind walls, especially in hot, humid climates where one small gap is all it takes for condensation to form, leaving unseen areas susceptible to mold growth.

“It was a perfect fit for what we were doing here,” said Waldrop project manager, Jeff Goodlett, referring to the particularly complex mechanical system at Furman.

The project entailed complete installation of all the mechanical equipment, plumbing and associated fixtures for 158 student rooms, 82 bathrooms and other spaces in four separate dormitories. Four miles of insulated piping had to be installed, much of it crowded into narrow wall chases or in 158 induction terminal units and several energy recovery ventilators, blower coils and air handling units.

The equipment was part of a new 4-pipe chilled and hot water heating system at the Lakeside student residences. The system would give students in each dorm room total thermostatic control over space temperature, regardless of the season.

But with all this control and comfort comes complexity. Each and every HVAC related unit had to be piped with both chilled and hot water supply and return pipes, and all of it had to be insulated. Hall used AP Armaflex Black LapSeal with 1/2-inch wall thickness on all of the chilled water piping, and 1-inch thickness on the hot water and domestic water piping.

“LapSeal installs about twice as fast as regular Armaflex. It cost more, but here the extra cost was justified. It was perfect because we had so many straight runs of pipe in between walls,” said Hall.

## Strategic Product Choice

Throughout the project, mechanical and insulating contractors were sharing time and job-site space with a plethora of other trades, including electrical, drywall, framing, fire stop and controls contractors. Piping had to be insulated almost as quickly as it was installed, and then tested and covered with drywall in quick succession.

Not surprisingly, when Hall came to Goodlett with the suggestion to use Black LapSeal, Goodlett was instantly onboard. As Hall had anticipated, the product was an asset in both time and space.

“No other piping insulation could have provided the necessary R-value and still fit within the compact induction units and the crowded 20-inch wall chases. I don’t think we could have finished the project on time without it,” said Hall.

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