

Job Story:

PROBLEM:

Find a cost-effective yet high performance alternative to foam glass for condensate lines subject to Miami's high humidity climate.

SOLUTION:

Cut material and labor costs with easy-to-install AP Armaflex Pipe Insulation.

Project:
New Airport Concourse J at
Miami International Airport

Location:
Miami, Florida

Sub-Contractor:
Smith – Unitherm, Inc.

Mechanical Contractor:
The Pool & Kent Company



Closed-cell Armaflex® Insulation Saves Miami Airport Material and Labor Costs on New Concourse

Miami International Airport (MTI) was bracing to spend top dollar for insulation materials that could withstand Miami's humid climate. However, when it came to selecting insulation for the condensate piping serving 52 air handlers at the new Concourse J terminal, Paul Milton had a suggestion that would save the owner money and still deliver the performance MTI demanded.

Milton, project manager with Smith/Unitherm, the insulation contractor on the project, suggested AP Armaflex Pipe Insulation as a cost-effective alternative to foam glass. AP Armaflex's closed-cell foam structure is impervious to moisture, with less than 0.2% water absorption property. With summer humidity ranging from 85-100% throughout Miami's cooling season, this was a critical consideration for the airport, as moisture will condense on any cool surface. AP Armaflex flexible tubing is extremely easy to install, as the material can easily be slid onto piping, and pushed over minor fittings, bends and elbows, requiring minimal cuts and joints. This makes it ideally suited to condensate drains, which typically have many bends, and installing a less flexible material like foam glass is very labor intensive.

Another advantage to the Armaflex selection was the Armafix® insulation pipe hangers, which are designed not only to support the weight of the



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pipng system, but properly distribute the weight and prevent thickness compression. These easy-to-install supports are also pre-insulated with Armaflex for a unique foam-to-foam bond to prevent condensation gaps, so that there is no interruption or compromise in the insulation value at the location of the pipe support.

Milton, who has been installing insulation materials for 30 years, considers AP Armaflex to be an effective and affordable alternative to other high performance insulations. He has recommended it for many insulation applications, including chillers.

Although AP Armaflex can be selected for applications with line temperatures as low as -(minus) 297°F, the condensate lines at Miami would only be exposed to sporadic bursts of 40°F water, so the project demands were well within the product capability.

Costs Less AND Is Easier to Install

The cost savings over foam glass were significant. Paul Milton estimates that the airport saved approximately \$25,000.00 by installing closed-cell foam instead of foam glass. Kevin Myers, one of the many engineers involved in the Miami Concourse J project, agrees that AP Armaflex was smart, value-engineering.

"There's more expensive material out there, but labor costs also go up," says Myers, adding that fiberglass, while less expensive than both closed-cell foam and foam glass, would not be suitable because it doesn't provide a sufficiently tight seal.

AP Armaflex tubes are available in popular sizes up to 6-inches IPS and are used worldwide to retard heat gain and control condensation drip from chilled water and refrigeration systems. They can also be used on plumbing and liquid heating piping. AP Armaflex is available in slide-on tubes and pre-slit, self-seal tubes with pressure-sensitive adhesive for quick, easy installation on existing piping. Like all elastomeric foam products, AP Armaflex's closed-cell structure prevents moisture from wicking and therefore helps protect against the accumulation of moisture which can lead to mold.



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