

CASE STUDY

Baylor Medical Center, McKinney, Texas



PRODUCTS USED

Knauf Insulation Earthwool™
1000° ASJ+ Pipe Insulation
with ECOSE® Technology

PROJECT

Baylor Medical Center,
McKinney, Texas

"This was a fast track project. With this new product Texoma has been able to keep on schedule using a regular sized crew. When I first came onto the jobsite the building had not been dried in. It blew my mind that the piping was already being insulated because the general contractor was drilling holes in the upper level floors to let rain water drain off of the curbed concrete slabs.

Normally I would never allow insulation to be installed until the building was completely dried in. I was very impressed with the quality and performance of this product. We tested it. We watched water drip on it with no damage at all."

Henry Jarvis
Quality Manager
Dyna Ten Corporation

A list of new construction building owner expectations will likely include design and construction objectives such as reasonable capital investment, occupant health and safety, sustainability of building materials, economical operating cost, and long-term system reliability. For architects, engineers and contractors, meeting or exceeding these building owner expectations is paramount.

Knauf Insulation, as the thermal insulation market leader, is mindful of these objectives and has a proven record of manufacturing insulation materials that provide effective product driven solutions toward reaching each of these goals. The Baylor Medical Center, owned by Baylor Health Care, and located in McKinney, TX provides an excellent illustration as to how technologically advanced Knauf Insulation Earthwool™ 1000° ASJ+ Pipe Insulation with ECOSE® Technology can have measurable advantages in a practical application.

CHALLENGE

Among the many tasks facing construction management teams is the challenge of effectively accomplishing a fixed amount of quality work within a predetermined time period; a daunting task to be sure. This challenge is compounded by inevitable and often unpredictable inclement weather which can easily disrupt construction schedules due to the risk of water damage to construction materials. Such was the case at the fast-track Baylor Medical Center project in McKinney, Texas.

During the early construction phase of this hospital project, with the building roof and exterior walls being incomplete, rain water was collecting on each of the several floor slabs throughout the structure. Numerous holes were drilled through several upper level floor slabs to provide outlets for rain water to drain to the successive floors

below. With the building structure in this condition, and with overhead piping having been installed and hydrostatically tested, Texoma Industrial Insulation, Inc. could not begin the installation of pipe insulation using insulation faced with standard All Service Jacketing (ASJ). It was apparent that if the installation process were to begin, water damage and/or jacketing discoloration would surely occur on pipe insulation jacketed with traditional ASJ facing where paper is exposed. MEDCO Construction, Dyna Ten Corporation, and Texoma Industrial Insulation, Inc. were clearly faced with having to delay the mechanical systems insulation start-up.

In that the overall project completion schedule was to be maintained, any delay in the insulation start would dramatically impact the number of insulators required to finish on time. It was estimated that with a start-up delay approximately seventy to eighty insulators would be required for Texoma Industrial Insulation, Inc. to keep pace with the construction schedule. With this in mind, MEDCO Construction requested that Dyna Ten Corporation and Texoma Industrial Insulation, Inc. conduct a search for a piping insulation product that would not be damaged by short term, intermittent liquid water exposure.

SOLUTION

Art Navarrete, Vice President and Armando Maya, Project Superintendent of Texoma Industrial Insulation, Inc. quickly recommended Knauf Insulation Earthwool 1000° ASJ+ Pipe Insulation. "We were able to start insulating the HVAC and plumbing piping about five months earlier than we would have," said Navarrete.

BENEFITS

Among the many highly functional features of Earthwool 1000° ASJ+ Pipe Insulation is the newest generation of all-service-

jacketing which is composed of aluminum foil, reinforced with glass scrim bonded to a kraft paper interleaving with an outer layer of film which leaves no paper exposed. With Knauf Insulation Earthwool 1000° ASJ+ Pipe Insulation having been properly applied, and with any temporary exposed ends vapor sealed, pipe insulation installation can be scheduled much sooner than in the past. Such was the case at Baylor Medical Center.

Navarrete stated, "Using Knauf ASJ+ instead of standard ASJ allowed us to get started insulating much earlier and stay on schedule without having to make drastic moves to bring in additional people. We peaked at about 40 insulators working at a normal pace instead of having 70 – 80 people struggling to get on schedule."

SUMMARY

Knauf Insulation Earthwool 1000° ASJ+ Pipe Insulation with ECOSE Technology has provided solutions toward meeting the common expectation of the owner, architect, engineer, and contractors:

- A timely schedule was maintained with a very cost competitive product.
- Occupant health and safety was assured by using a product that is GREENGUARD Environmental Institute certified to be formaldehyde free, and UL Environment certified to ensure there would be no fire issues associated with the product.
- Bio-based ECOSE Technology binder combined with insulation that is UL Environment certified to be >60% post-consumer recycled content have assured sustainable product application.
- Low thermal conductivity glass fiber insulation contributes to long-term and highly efficient mechanical system function.

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