

CASE STUDY

Solutions Portfolio Advantages for Supermarkets

Building renovations are an excellent time to increase energy efficiency and make critical upgrades to systems. Project managers and contractors working at a leading Texas-based supermarket chain, H-E-B, took their insulation installation efforts to the next level during renovations and new construction. By standardizing processes and utilizing our Solutions Portfolio and technical teams for proper insulation inspection, H-E-B and BT Services created a successful partnership with Armacell. **Armacell in action.**

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MAKING A DIFFERENCE AROUND THE WORLD

Supporting Refrigeration Contractors and Customers

H-E-B Grocery Stores' Renovation and New Construction

PROJECT:

Partner with supermarket H-E-B and BT Services during insulation installation to support the project teams with training, inspections, and our Solutions Portfolio benefits.

LOCATION:

Texas and Mexico

MECHANICAL CONTRACTOR:

BT Services

CHALLENGE:

Effectively insulate refrigerant pipes and chilled systems equipment utilizing the proper products and accessories for supermarkets during renovations or new construction projects.

SOLUTION:

Install 1-1/2" AP ArmaFlex and ArmaFlex® 520 Adhesive with ArmaFix® Insuguard 1-click Pipe Saddles and provide hands-on installation inspection and product verification support.

TRUSTED INSULATION, TRUSTED SUPPORT

There are more than 63,000 supermarkets in the US and each one has dozens of walk-in coolers, deli display refrigerators, and glass door freezer and refrigeration units. These chilled continuous service temperatures are a constant target of moisture causing surface condensation and vapor permeation. Condensation is a refrigerant system's enemy and can cause decreased thermal efficiency, pipe corrosion under insulation, icing, mold or mildew growth, system failure, safety issues (wet floors), and most importantly system downtime. In addition, refrigeration units must

run 24/7 to maintain food quality and inventory, so finding strategies to control cost and optimize energy use while avoiding surface condensation starts with system design and superior insulation installation.

One trusted and easy strategy is installing flexible, elastomeric insulation on refrigerated pipes and systems. These below-ambient systems can vary by application, temperature requirements, refrigerant types, and operating environments, but commercial and industrial refrigeration systems are all designed to operate in typically the 20°F to -50°F range. Keeping a grocery store's products fresh and cold is a constant priority as inventory is a store's

The EPA estimates that just a
10% reduction
in energy usage is equivalent to
increasing a grocery store's net
profit margins by **16%!**





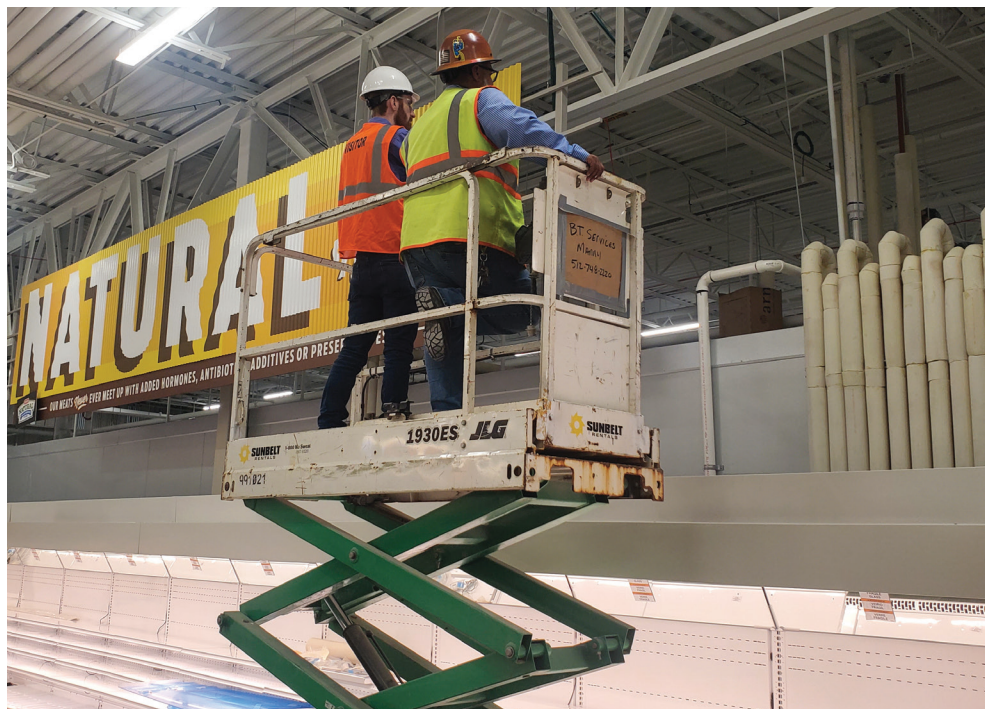
highest cost against their bottom line. It is easy to understand why supermarkets tend to focus on refrigeration energy efficiency during renovations or new store openings as was the case with the Texas-based chain, H-E-B. With over 400 locations, H-E-B is a major link in the grocery supply chain system, and they are constantly looking for ways to drive continuous improvement. So, in 2022 when H-E-B engineering teams contracted BT Services, they explained H-E-B's sustainability mission of ensuring their facilities are designed to save energy, reuse materials, reduce harmful pollutants, and conserve natural resources. H-E-B specified insulation with this in mind and discussed Armacell's Solutions Portfolio benefits with our technical team. The winning solution was a customer-focused effort from Armacell that supported construction projects with superior products, advanced training, and hands-on inspection during renovations or new builds.

H-E-B contractors previously used other insulation materials during installations with mixed results. Another sticking point with H-E-B was proper installation training. For example, improper adhesive application can cause open seams requiring rework. Understandably, H-E-B was selective when choosing new suppliers and materials. Eddie Gonzalez, Director of Engineering at H-E-B commented,

"The Solutions Portfolio insulation system provides a cost-efficient path to improving energy-efficiency and sustainability of refrigeration systems, and it goes well with our progression of improving the specification process, methods of installation, and long-term cost of ownership. All these factors contributed to how we got here and Armacell is a piece of our program."

What sealed the deal, was Armacell's customer support. Not only were installers provided with free AQIP training to ensure proper insulation installation, but both H-E-B and

BT Services gained piece of mind by having our Armacell's technical experts survey job sites to inspect contractors during and after project completion. "As part of the Solutions Portfolio program, customers receive hands-on service from Armacell. Each project is inspected by an Armacell representative making sure that the right products are installed in the right way, and in the right place. I've personally inspected new H-E-B grocery stores since they signed on with the program where I am in PPE, up on a scissor lift 20 feet in the air, getting a close-up look at the insulation on



the refrigerant systems. This level of detail gives customers the satisfaction of knowing that our products are being correctly installed and specifications are being followed,” remarked Luke Rogers, Market Development Manager at Armacell.

Now, all new and renovated H-E-B grocery stores will only specify and install AP/ArmaFlex® insulation, ArmaFlex 520 Adhesive, and ArmaFix® Insuguard pipe saddles on refrigeration lines, pipes, and systems. And Armacell will be there to review and support their successes.

SPECIFYING FOR VALUE

Closed-cell elastomeric insulation like AP/ArmaFlex, provides superior protection against thermal losses, condensation, and moisture accumulation. It is the ideal choice for insulating refrigeration piping

systems, and it is especially valuable where condensation might otherwise be absorbed by fibrous types of insulation, significantly degrading their thermal performance, and ultimately shortening their lifecycle. The ASHRAE Handbook specifically recommends closed-cell insulation for refrigeration system applications, such as cellular glass, flexible elastomeric, polyisocyanurate, and polystyrene. While these insulation products share a few characteristics, elastomeric pipe insulation is the best solution due to its flexibility, low permeability rating, built-in vapor retarder, thermal integrity, and ease of installation. Specifying Armacell’s Supermarket Solutions is key to a successful refrigeration system. We offer two insulation package levels each tailored to code compliance, system performance and budget, making specifying easier. ■



Solutions Portfolio Benefits

Targeted insulation solutions tailored to code compliance, system performance, and budget

- Simplifies the specification process with all-inclusive product packages
- Two product package levels available: High Performance and Superior Performance
- Extended limited warranties of up to 15 years
- Includes Armacell Qualified Installer Program (AQIP) training
- Includes on-site inspections by Armacell representatives to ensure proper installation
- Provides system integrity by using compatible materials

ArmaFlex Insulation Benefits

- Closed-cell prevents moisture wicking and eliminates need for additional vapor retarder
- Low water absorption and low water vapor transmission
- Protection of Indoor Air Quality: Low VOC, fiber-free, non-particulating, formaldehyde-free
- GREENGUARD Gold Certified
- FM Approvals
- Microban® antimicrobial product protection inhibits the growth of mold and mildew
- Flame and Smoke Developed Index per ASTM E 84 25/50 rated up to 2” wall
- Many sizes or thicknesses available in pre-formed tubes, sheets, rolls, and accessories

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ABOUT ARMACELL

As the inventor of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal and mechanical solutions that create sustainable value for its customers. Armacell's products significantly contribute to global energy efficiency making a difference around the world every day. With more than 3,300 employees and 27 production plants in 19 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for acoustic and lightweight applications, recycled PET products, next-generation aerogel technology and passive fire protection systems.



For more information, please visit:
www.armacell.us
info.us@armacell.com