Refrigeration Renovation

Expanding large scale refrigeration systems due to increased buyer demand in a warehouse retail environment creates unique challenges for not only contractors, but for business owners and customers as well. Contractors had no need to shop around as Armacell's ArmaFlex® insulation products were the requested, reliable, and flexible, dust-free solution to this challenging chilled system overhaul project. **Armacell in action.**

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Big-Box Retailer Keeps Things Cool with ArmaFlex

Price Club's Refrigeration Renovation

PROJECT:

A large price club retail chain experienced a spike in cold and frozen food demand due to customer purchases during the Covid-19 pandemic causing the need to upgrade and expand their refrigerated and frozen food systems to newer advanced technology.

LOCATION:

Puebla, San Luis, and Celaya, Mexico

MANUFACTURER AND INSTALLER OF REFRIGERATION SYSTEMS:

Hillphoenix

CHALLENGE:

Finding a closed-cell, cold water application insulation material that met strict public fire and smoke regulations, while ensuring installation efficiency with low product waste.

SOLUTION:

Install 1 inch thick ArmaFlex® in tube form and ArmaFlex in sheet form for its easy-to-install, dust-free, and flexible nature, saving time due to fast installation and clean up.

Supermarkets and grocery stores are an essential \$6.8 billion industry. By far a store's highest expense is their food inventory. While energy costs are only about 2% of revenue, running the cold storage equipment eats up about half of that 2%!

There are several types of refrigeration cases, cooler rooms and freezers. Most stores have many aisles of upright freezers where the coldest items are kept anywhere from -5 to -24°F. Larger price club chain supermarkets have upright refrigeration and freezer units, as well as entire cold rooms and chilled warehouses.

Members-only retail clubs have seen an increase in foot traffic due to the pandemic, especially in their frozen and refrigerated foods sections. This was no exception for a global price club retailer with over 750 locations, 39 of which are in Mexico. The organization recognized early on that this increase of customer's purchases needed attention at three of their locations in Mexico as soon as possible. The decision was made to expand current refrigeration systems and install upgraded equipment at these three key locations while remaining open for business, which posed guite a challenge. The technical group of this price club chain previously obtained excellent results in similar situations by using ArmaFlex® products for the main refrigeration copper lines in U.S. locations, so they wanted repeated results at these locations.

Hillphoenix, a leading manufacturer of commercial refrigeration display cases and systems, installed the new refrigerator and freezer sections. Their trained installers were responsible for integrating the new systems with the existing equipment, which included several different types of equipment brands, lines, and the most reliable insulation materials. The key objective was to not disturb business operations or customers during the upgrade and install, while maintaining a clean project workspace. A second objective that Hillphoenix had to consider was time. These projects had to be completed quickly and efficiently, making the use of familiar and trusted products imperative to their success. The Hillphoenix crews were very comfortable installing ArmaFlex insulation on this project's chilled refrigerated lines, compressors, compressor racks, panels, valves, and pipes.

Did You Know?

from a chain store's physical appearance as they are usually large-scale buildings of more than 50,000 square feet, plainly designed, and often resembling a large box.





"Every time we use Armacell products, it is a really smooth installation process," said Alejandro Zarate, Sales Manager, Latin America and CES LATAM Manager at Hillphoeix. "Our installers have used these products for years and we understand the product. We didn't have many challenges even though the job was large with three stores and hundreds of feet refrigeration lines."

Avoiding any dust accumulation during the ArmaFlex installation eased the contractors concerns as customers were able to shop in a clean environment without disruption. Another key requirement in the mechanical system product choices was flexibility, particularity that the insulation tube could be easily slipped over the refrigeration lines. Rigid insulation foams would not meet the project timeline due to longer installation periods, and they also had the risk of dust generation. This installation and upgrade was a fast operation and the technical group of these price club warehouses obtained excellent results once again. As a consequence, the chain has decided to include ArmaFlex products as part of the regular specs for their new and upgraded refrigeration lines in the future.

Aristides Marino, Armacell's Sales and Marketing Manager, Mexico, remarked "Systems used by this large chain are some of the most advanced technologies, using state-of-the-art equipment. I am proud that they use and continue to choose Armacell's solutions for their projects. That is the best outcome for me from a sales perspective, a happy and repeat customer."

SPECIFYING FOR VALUE

Energy efficiency is vitally important as chilled systems need to function at top performance, which means they require the proper insulation.

Armacell's insulation systems are ideal for insulating miles of liquid and suction lines, chilled water piping, chillers and cooling tanks. Insulating pipes, refrigeration lines or cooling equipment not only promotes energy efficiency, but it also prevents condensation on below-ambient temperature surfaces—a critical issue for this industry.

Specifying Armacell's Supermarket Solutions is prudent for supermarkets, grocery stores and cold food distribution points as we offer two insulation package levels, High Performance and Superior Performance, each tailored to code compliance, system performance and budget, making specifying easier. Our products are always fiber-free, formaldehyde- free and low VOC making them an excellent option for any environment. Its closed-cell structure also prevents moisture ingress and naturally resists the growth of mold and mildew. ArmaFlex tubular pipe insulation comes in many ID sizes and thicknesses from 3/8" to 2" to accommodate diverse climate temperatures and humidity levels. making it an excellent choice for sustainable systems around the world.

- GREENGUARD Gold Certified
- Fiber-free, formaldehyde-free, low VOC and non-particulating formulation protects indoor air quality
- Microban® antimicrobial product protection inhibits the growth of mold and mildew on the insulation
- Closed-cell foam structure prevents moisture wicking and condensation while eliminating the need for additional vapor retarder

All data and technical information are based on results achieved under the specific conditions defined according to the testing standards referenced. Despite taking every precaution to ensure that said data and technical information are up to date, Armacell does not make any representation or warranty, express or implied, as to the accuracy, content or completeness of said data and technical information. Armacell also does not assume any liability towards any person resulting from the use of said data or technical information. Armacell reserves the right to revoke, modify or amend this document at any moment. It is the customer's responsibility to verify if the product is suitable for the intended applications. The responsibility for professional and correct installation and compliance with relevant building regulations lies with the customer. This document does not constitute not is part of a legal offer to sell or to contract.

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GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit ul.com/gg.

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ABOUT ARMACELL

As the inventors of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal, acoustic 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 3,135 employees and 24 production plants in 16 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for high-tech and lightweight applications and next generation aerogel blanket technology.

