ARMACELL SOLUTIONS

Airports

Trusted by airports around the world, Armacell's insulation products reliably provide energy efficiency, protect against condensation, and follow strict engineering standards to meet code compliance. Armacell is continuously first class in performance providing energy efficiency without extra baggage.

www.armacell.us

armacell®

MAKING A DIFFERENCE AROUND THE WORLD

AIRPORT SOLUTIONS

Airports play a critical role in the air transport value chain, and they require massive amounts of energy to conduct daily operations. These transportation hubs can greatly benefit from superior energy efficiency products like our mechanical insulation. Our solutions help solve energy reduction concerns and cost issues by providing a reliable and simple way to manage HVAC and plumbing operations more efficiently.

NAVIGATING AIRPORT ENERGY USE

Energy usage in airports is divided into two sectors with 70% used for electricity needs and 30% for climate control. These facilities contain large terminals, non-passenger buildings, aircraft hangers, and other land operation structures. These buildings are usually equipped with heating and air-conditioning systems, high-power lighting systems, and mechanical equipment. In addition to the electrical energy required for these facility operations, electrical energy is also needed for people-moving, data centers, advanced air transport systems, meteorological equipment, and security provisions. The mass amounts of energy generation required creates carbon dioxide (CO_2) and greenhouse gas (GHG) emissions. These GHGs are released into the air when fossil fuels are used to generate electricity and power vehicles. CO_2 makes up the majority of GHG emissions, with lesser contributions from nitrous oxide (N_2O), methane (CH_4), refrigerants, and other compounds.

Did you know that airports consume up to

180M kWh

per year in electricity? That is enough to power a single house for over 160,000 years!

REDUCING ENERGY USE AND LOWERING GHG EMISSIONS

According to statistics the energy consumption of the aviation industry accounts for approximately 8% of the total energy demand of the transportation industry. While this might seem small, when put into context it is clear why reducing airport energy use is so important. Airports are continually trying to manage energy requirements through material sustainability, energy-saving initiatives, environmental policies, and cost management strategies. By reducing energy use, and in turn the generation of GHGs, airports can not only lower energy bills and operating costs, but they can also have a significant environmental impact on CO_2 emissions arising from both the air and land operations. Thus, energy management—which includes heating, ventilation, air conditioning and refrigeration (HVAC-R)—is essential.

HOW AIRPORTS CAN IMPROVE ENERGY EFFICIENCY

Airports can pursue several different energy efficiency measures simultaneously to manage their energy use such as installing renewable energy systems, improving building insulation, monitoring energy consumption, improving the efficiency of heating, ventilation, and cooling systems, installing motion or timing systems for lighting, or purchasing low or zero-emission vehicles. Of all these options, the maintenance of temperature control within airport passenger terminals typically represents the most significant contribution to energy usage reducing at most airports.[1]

COMPLIANCE AND REGULATION CHECK POINTS

Armacell continuously works to improve testing standards and our products meet strict airport building regulations, International Building Codes, as well as the requirements from organizations like the International Energy Conservation Code (IECC) and ASHRAE, which develop model building codes and performance standards. Armacell's insulation products meet flame spread and smoke developed indices requirements according to ASTM E84 and UL 723. ArmaFlex Ultra is UL Certified to UL 723 for thickness up to and including one-inch thickness. While our products meet many compliance standards it is important to note that building codes can vary from state to state and municipality, so specifiers and installers should be sure to select products that are compliant in their region.

For more information about the ArmaFlex family of products, visit **www.armacell.us**

FIRST CLASS SOLUTIONS

Bringing more than half a century of science, expertise, and innovation to foam technology, Armacell has the expertise to create specialized solutions to meet the strict requirements of the transportation industry. Our advanced insulation product portfolio includes a variety of Airport Solutions to support HVAC applications, cold lines and chilled water lines, mechanical systems, chillers, UV, and high temperature areas, and also includes accessories like pipe hangers, adhesives, and tape. Armacell's Solutions Packages offer a wide range of products tailored to code-compliance[2], performance and budget. ■

[1] https://www.faa.gov/airports/environmental/air_quality/carbon_emissions_reduction/

[2] Check building codes that apply to your project to ensure that you specify the correct product for the job.

AIRPORTS AROUND THE WORLD RELY ON ARMACELL

PROJECTS WON

- **Austin-Bergstrom International Airport** – Austin, TX
- **Hartsfield-Jackson Atlanta International Airport** – Atlanta, GA
- **Dallas Fort Worth International Airport** – Dallas, TX
- **Denver International Airport** – Denver, CO
- **Elmira Corning Regional Airport** – Horseheads, NY
- **Fort Lauderdale-Hollywood International Airport** – Fort Lauderdale, FL
- **Kansas City International Airport** – Kansas City, MI
- **LaGuardia Airport** – Queens, NY
- **Billings Logan International Airport** – Billings, MO
- **Newark Liberty International Airport** – Newark, NJ
- **Seattle-Tacoma International Airport** – Seattle, WA
- **Portland International Airport** – Portland, OR
- **Ronald Reagan National Airport** – Arlington, VA
- **Salt Lake City International Airport** – Salt Lake City, UT
- **Felipe Angeles International Airport** – Zumpango, Mexico
- **Orlando International Airport** – Orlando, FL
- **Lafayette Regional Airport** – Lafayette, LA
- **Missoula International Airport** – Missoula, MO
- **Tampa International Airport** – Tampa, FL
- **Tocumen International Airport** – Panama City, Panama

SMART SOLUTIONS FOR YOUR BUSINESS

Armacell's Solutions Portfolio groups insulation products into comprehensive packages aimed at making the specification of the right insulation for mechanical systems easier than ever before. Mechanical engineers, insulation contractors, building owners, or distributors can easily identify the best insulation products for use in an air plenum, on HVAC/R mechanical piping, chilled, or plumbing – the key places where insulation is critical to the performance of the equipment. Packages offer two levels of cost and service: High and Superior Performance with a 10- or 15-year warranty.

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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:
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