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A. General

By using the AERCON technical manual, you have made a decision to consider the most innovative building material available in today's market. The combination of fire resistance, thermal efficiency, cost effectiveness, and environmental qualities of AERCON cannot be surpassed by any other building product.

Construction demands are ever changing, requiring building systems to be versatile, efficient and cost effective. AERCON offers this in a variety

of systems that can be utilized in many applications. AERCON produces non-load bearing vertical and horizontal exterior wall panels, load bearing vertical panels, and floor and roof panels. AERCON also produces a significant number of block products in a multitude of combinations of thickness, height, length and Strength Class. Review the summary of products in the Overview Section to determine which AERCON system will best suit your needs.



AERCON's 100,000 sq. ft. state-of-the-art manufacturing facility located in Haines City, Florida.

B. What is AERCON?

AERCON is the name of the company and the fully integrated building system of Autoclaved Aerated Concrete (AAC) panels and block, perfect for commercial, industrial, educational, public and residential projects.

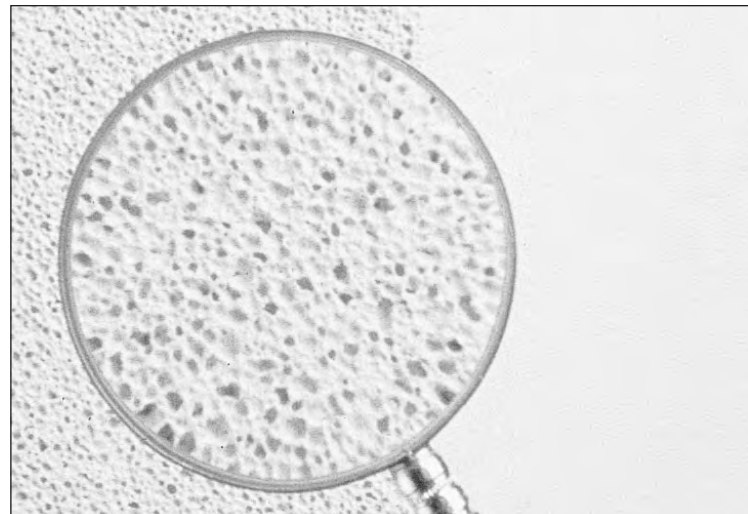
AERCON Florida's state-of-the-art manufacturing facility is located in Haines City, Florida. The 100,000 square foot facility is designed to efficiently produce block and engineered panels for rail or truck transport throughout the United States.

AAC was developed by a Swedish architect, and was patented in 1924. The architect was looking for a building material that had the properties of wood - good thermal insulation, solid structure, easy to work with and handle - but without the disadvantages of combustibility, decay and termite damage. At that time there were only small, heavy building blocks with poor insulation properties. He succeeded in producing a highly cellular, lightweight material from quartzite sand, lime and water.

These raw materials can be found in almost unlimited quantities throughout the world. They are processed with cement and a rising agent to provide a building material with a large number of air pores - aerated concrete. And it is precisely these pores, in addition to the solid structure of calcium silicate hydrates, which give AERCON its exceptional product properties: fire resistant/non-combustible, superior thermal insulation, excellent acoustic insulation, lightweight, termite and pest resistant, ease of workability and handling, universal application, non-allergenic, and efficient construction.

Environmentally friendly and energy-conserving, AERCON meets all the requirements of our modern age. Absolutely no pollutants or hazardous wastes are generated in the process and there is no waste of precious raw materials. Pure AERCON, not containing any foreign materials, can be recycled into other useful products.

Even the production method conserves energy since steam curing is carried out at high pressures and thermal energy is recovered and reused for maximum efficiency. Production trimmings can also be fully recycled, again making AERCON a highly efficient and environmentally compatible building material.



Magnified view of AERCON.

C. What Gives AERCON the Competitive Edge?

AERCON offers strong advantages over conventional building materials because of its exceptional product properties and ease of construction. AERCON's excellent strength makes it suitable for both load bearing and non-load bearing structures, and perfect for all types of appli-

cations. Although AAC is relatively new to the U.S., it has been a favored building material for over 70 years throughout Europe and Asia, and in many countries throughout the world.

AERCON is available in several different load bearing and non-load bearing forms:

- Large blocks with handholds which can be quickly and easily placed with thin bed mortar
- Lightweight wall partitions
- Lintels
- Large reinforced panels for floors and roofs
- Load bearing wall panels

Blocks and panels are available with tongue and groove joints for easy and sure connection. They can be used in single and multi-story buildings and are ideal for residential, commercial, educational, industrial and public buildings.

D. Applications

Public Facilities

Added public safety was one of the main benefits achieved when choosing AERCON for these buildings.



AERCON wall and floor panels were used in the construction of this \$4 million, 84-suite hotel expansion.



Load bearing vertical wall panels were chosen for this beautiful Central Florida Church.



This office building used AERCON load bearing wall panels and floor panels in conjunction with structural steel framing.



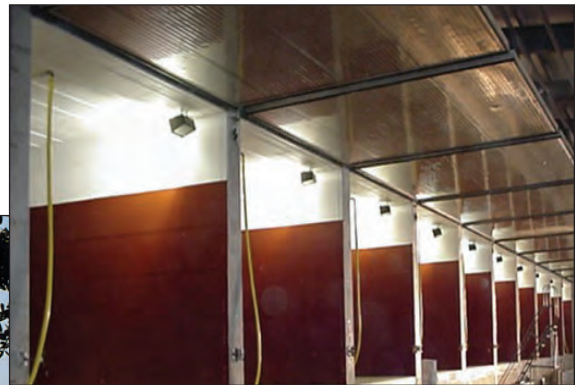
10" AERCON block was used to build this bank building.

Commercial / Industrial Facilities



AERCON block was used to build this ultra-modern concrete paver plant facility.

Savings from the speed of installation and energy efficiency were key decision factors in choosing AERCON for these projects.



This unique Industrial Application utilizes wall panels to build mushroom tunnels, proving that the AERCON product has unlimited uses.



AERCON panels are perfect for this non-load bearing cladding application where the panels are attached to a steel structure.



A telecommunications company chose AERCON's energy efficient wall panels for several Communication Equipment Buildings in order to lower their operating costs.



Needing climate-controlled space for sensitive electrical equipment storage, this warehouse owner chose AERCON for its superior thermal insulation.

Residential / Multifamily



Tenants of these AERCON structures have the comfort of living in a fire resistant, thermal efficient and environmentally friendly building.

This \$23 million, 245,000-sq. ft. Residence Hall Complex using AERCON panels includes seven residence hall buildings and five community buildings.



AERCON products were chosen to build this private residence, giving the developer, contractor, and homeowner a multitude of benefits over conventional products.

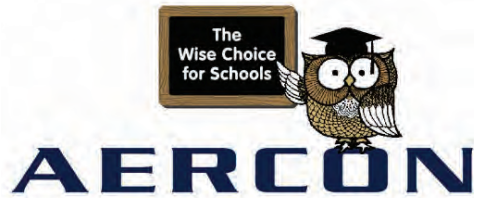


The sound absorption qualities of AERCON allows the two-family occupants of this townhouse maximum privacy in a small space.



AERCON was chosen for this residence hall project in Central Florida due to its excellent features and benefits: fire resistance, energy efficiency and acoustical insulation.

Schools



AERCON panels were chosen by this private Christian school primarily for the speed of installation. The installation of AERCON is much faster than conventional construction allowing an accelerated completion schedule.



This full middle school campus project of AERCON chose non-load bearing vertical wall panels for the project exterior and block for the interior, maximizing safety, energy efficiency, and sound absorption.



Originally designed for concrete masonry units, but easily converted to the use of AERCON block.

Over the last decade, school construction has had considerable growth. In order to meet the growth needs, several contractors have turned to AERCON for time and cost savings as well as the many other great product benefits.



Many variations of educational facilities have been constructed utilizing AERCON products. This facility used AERCON wall and roof panels to create a Modular unit. These units are assembled quickly, are cost effective and are a "permanent fix" to the problem of overcrowded schools.

Firewalls / Shaft Walls

AERCON helps prevent the spread of fire to adjoining rooms and buildings and never emits toxic gases or vapors when exposed to fire.



AERCON's 4-hour fire rating was perfect for this college dormitory project, satisfying the most stringent building code requirements.



AERCON is ideal for fire chase and shaft wall projects. Save time and money with less labor and material costs, fewer inspections and faster completion time.



The short-term and long-term benefits of AERCON systems are realized by owners, developers, designers and contractors alike. The unsurpassed benefits are achieved by the exceptional material properties and construction methods that are associated with the established AERCON approach to building.

E. AERCON Benefits and Advantages

Fire Safety (additional information in Fire Resistance Section)

- Highest UL fire ratings in the industry provide a fire safe environment
- Product is non-combustible
- No toxins or gases emitted when exposed to fire

Excellent Thermal Efficiency (additional information in Thermal Efficiency Section)

- Thermal performance eliminates insulation
- Reduces Life-Cycle energy costs
- Low heat transfer rate
- Outperforms conventional wood and concrete masonry construction

Economic Advantages (additional information in Economics Section)

- Fast-track construction and fewer finish materials provide a low cost capital option
- No furring, insulation or drywall needed
- An experienced four-man team and a single crane operator can install AERCON panels at a rate of four to six minutes per panel
- Low maintenance costs

Other Great Benefits and Advantages:

Lightweight Product

- An AERCON block weighs approximately 50% of a standard CMU block
- An AERCON panel weighs approximately 30% of standard cast-in-place concrete
- Reduces crane size and costs
- Lighter weight product creates easier work environment - less back strain

Offers Safer Environment

- Reduced pesticide sprays
- Non-allergenic material results in better indoor air quality – great for asthmatics
- AERCON can be designed to withstand hurricane force winds
- AERCON is ideal for building in earthquake prone areas

Flexible Design Options

- Unlimited workability
- Can be sawed, drilled, nailed and milled
- Field adjustments can be made easily
- Block products are available with or without handholds
- An excellent product for all types of climates - very hot to very cold

Pest Resistant

- No voids for insects and pests to make their homes
- Termites will not attack AERCON products

Acoustic Performance

- Transmission of sound generated from internal sources such as machinery or equipment can be significantly reduced
- Excellent Noise Reduction Coefficient for AERCON surfaces provides great sound absorption and damping without any additional measures
- Offers more privacy for occupants
- Especially helpful in noise control for buildings such as schools, hospitals, hotels, multifamily housing, and offices

Environmentally Friendly

- AERCON is an environmentally friendly product made from sand, lime, cement, water, and a rising agent
- No pollutants or hazardous wastes are generated in the process

When making a decision to construct a building, the cost of construction must be minimized, while still maintaining the technical requirements and high standards of the project. The money saved by faster installation, less labor costs, and fewer finish materials makes AERCON the right product for your next project. In addition, by selecting AERCON, you are also assured of maintaining technical requirements and quality standards for your project.