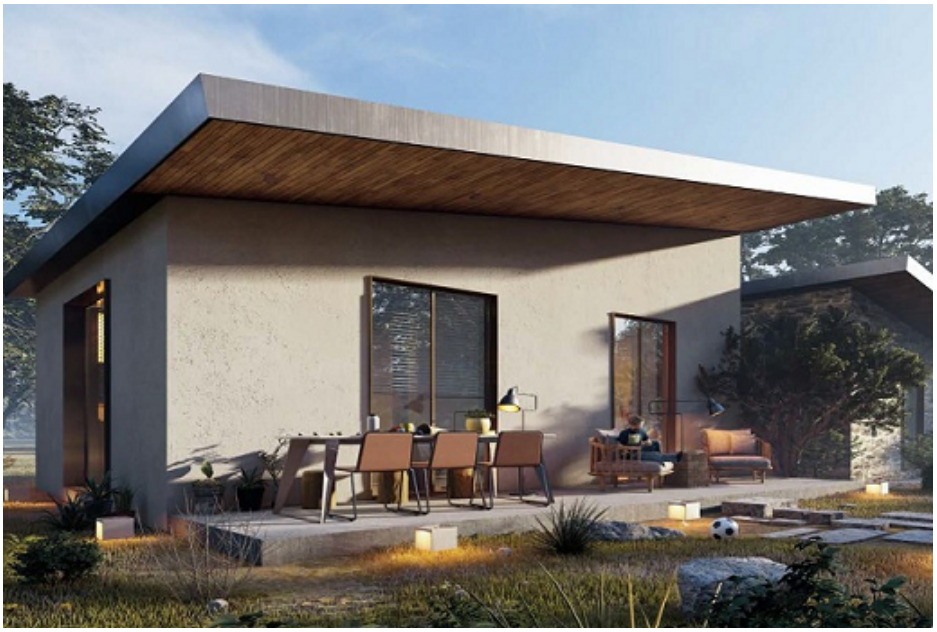
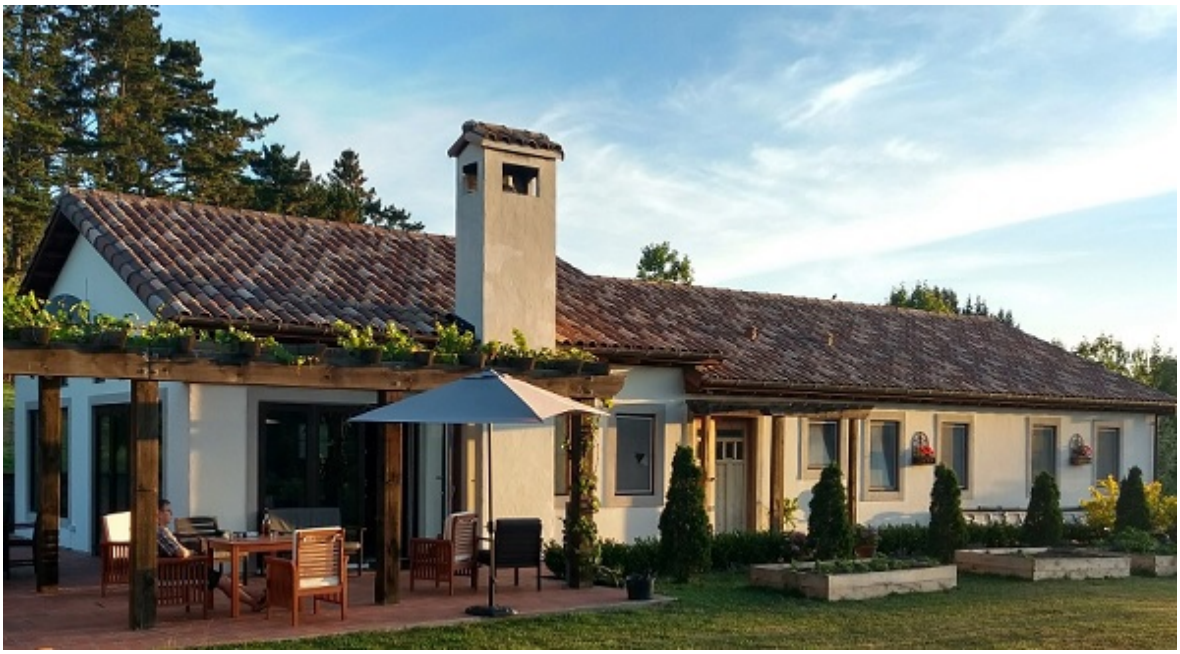
AERATED CONCRETE

Supplier of Aerated Autoclaved Concrete (AAC)
Blocks, Lintels, Panels and related products for New Zealand.

Delivering superior thermal performance, fire protection, earthquake resistance and excellent acoustic performance.





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AAC Products

AAC Blocks

Typically used throughout Europe, AAC blocks are intended for use in loadbearing wall, non-load bearing wall, and sound and thermal insulation applications. AAC block systems has been approved and used extensively in New Zealand for the last 30 years as they provide a robust seismic solution and are ideally suited for high end residental applications.

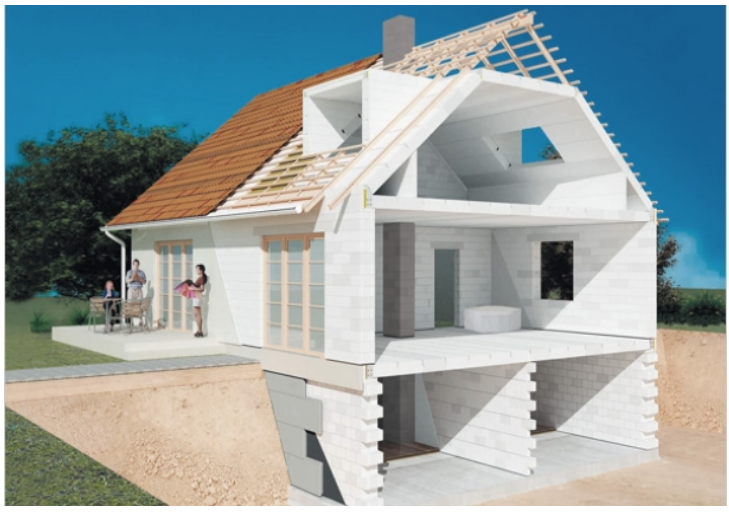
In addition to its versatility, the system is characterised by its ease of working and construction. The blocks can be sawn easily. This results in a relatively high speed construction which delivers cost savings, particularly in multi-storey projects.

The construction advantages are: it is light weight, simple to lay, quick to assemble, simple to saw/cut and chase, and has unlimited finishing possibilities. Being autoclaved, aerated concrete has excellent durability and is quite similar to that of solid concrete.

Blocks are cut on all six faces with extreme accuracy and are installed by using a thin bed of adhesive mortar to provide a complete and consistent wall strength. This method creates a thermal mass for the whole wall with no thermal breaks.

AAC Panels

A comprehensive construction method of AAC block, floor and roof panels allows for a total Aerated Concrete solution for your home.



This is considered one of the best structural solutions for stand-alone family houses and villas.

With this system the common issues of rot, water leakage and seismic concerns are no longer relevant for clients.

Thanks to its sound proofing qualities and ease of construction, AAC is also widely used for internal walls.

Offered as a total solution for an entire building to a maximum of 20 metres high, which is equivalent to a 6-storey building.

AAC Advantages

Thermal Insulation

Thermal protection in buildings directly influences the use of energy for heating and cooling, as well as the ability to control the room climate. AAC optimally provides excellent thermal energy efficiency for the building in all seasons. Additional thermal protection is not required.

Fire Resistance

AACs reaction to fire is nil and it makes no contribution to combustion. It does not release harmful gases in the event of fire. It is insensitive to the influence of temperature: the material structure does not change or deform, so that flames or smoke cannot propagate.

Green Design

AAC is manufactured from inorganic materials, has no radioactivity and is free from allergenic substances. It is composed of natural materials: cement, lime, sand and water. What nature has provided, we multiply it by 5 - with 1 cubic metre of raw material, we produce 5 cubic metres of AAC.

Light Weight and High Load

AACs manufacturing technology and sophisticated equipment ensure dimensional accuracy with discrepancies within 1mm. Processing with AAC thin bed adhesive can achieve higher compression strength and better thermal results.

Insulation and Noise Reduction

AAC has a cellular structure, evenly distributed in a closed pore system. This creates excellent performance in acoustics and noise reduction which can amount to a 60dB reduction in noise from outside and a 40dB reduction indoors between rooms.

Reduced Cost

Advanced AAC technology ensure a more comfortable, safe, durable and energy-saving building. Lower construction costs by eliminating the need for insulation, moisture barriers and vermin proofing.

Moisture Resistance

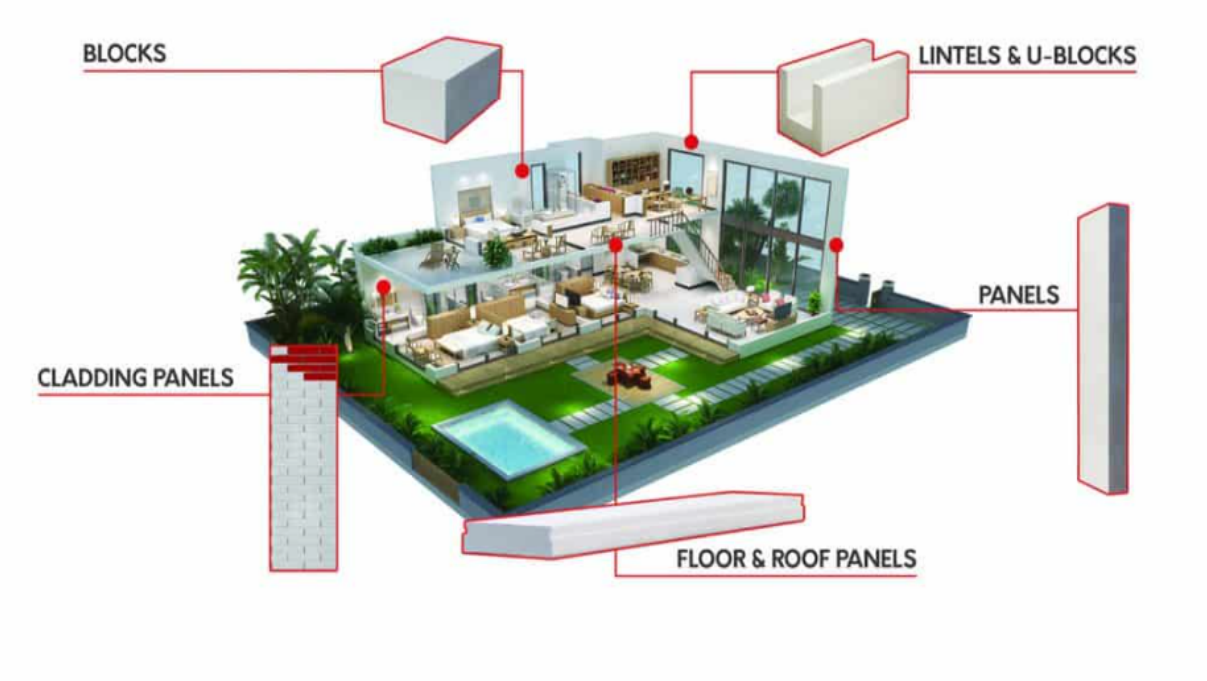
The closed cellular structure of AAC is comprised of many independant tiny evenly spaced air pores. AAC effectively prevents water from penetrating. The material will not rot and stops access of vermin and pests completely.

Convenient Construction

AAC manufacturing technology and sophisticated equipment ensures dimensional accuracy with discrepancies within 1mm on each face. Using AAC thin bed adhesive can achieve higher compression strength, better thermal results and speedy construction.

AAC Building System

The AAC Building System consists of standard-sized panels for different uses; such as floor panels, load-bearing wall panels, roof panels, partition panels, cladding panels and lintels. Precise product dimensions, ease of handling and lightweight contribute to the AAC Building System, resulting in direct time and cost savings in construction.



AAC History

Autoclaved Aerated Concrete as a building material has been industrially produced since the beginning of the 20th century.

First developments in autoclaved aerated concrete history are based on a series of process patents. In 1880 a German researcher Michaelis was granted a patent on his steam curing processes. Czech Hoffman successfully tested and patented in 1889 the method of "aerating" the concrete by carbon dioxide.

Americans Aylsworth and Dyer used aluminium powder and calcium hydroxide to attain a porous cementitious mixture for which they also received a patent in 1914.

Swede Axel Eriksson made a serious next step towards developing modern AAC when in 1920 he patented the methods of making an aerated mix of limestone and ground slate (a so-called "lime formula").

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