

Create a Feeling!

Ambionse is an Insulated Concrete Formwork (ICF) that allows you to produce a home of substance and style. The substance is inherent in the block but the style is up to you.

An Ambionse home will be quieter than a timber framed house because the walls are more solid. The insulation and thermal mass of the wall will provide and maintain a much more comfortable temperature and virtually eliminate the opportunity for mould to develop and grow.



There will be less air infiltration, keeping out the dust and pollen. There is no timber to rot and no dangerous preservative chemicals. None of the Ambionse products produce any chemical fumes either during construction or once the owner moves in. As a result the indoor air quality has a purity unlike a house of another construction type.

These features mean that not only is an Ambionse home more healthy, but it will also more comfortable. As well as that, the solid walls provide added security. The durability of the concrete core means that you are building a home that can be passed onto future generations, not just to last for one lifetime. This all adds up to a better environment.

Living in such an environment creates a feeling of security and peace.

Lifecycle Costing

The way we live our lives today is clearly different from how previous generations lived theirs. When building a home, thought must be given to the how the lifestyles of tomorrow will place demands on the use of the home. Current trends show that kids don't leave home, elderly parents are cared for and more people are working from home. The way we live has changed and will continue to change. The products used within a home need to meet these changes and provide a Future Proof Building.

Concrete is an extremely durable product. Ambionse combines it with long lasting insulation to allow you to create a home that will last for generations, not just a single life time. The initial cost of construction is not that much more than products traditionally used for residential construction, and maintenance of an Ambionse wall is much less. When you also consider the energy savings, an Ambionse home has a greatly reduced lifecycle cost.



Desert Development Takes Advantage of ICF Properties



During our research trip, we were able to visit the Villages at Rio Del Sol, just out of Palm Springs in California. Of the 287 houses within this gated community, 160 of them will be built with ICF, making it the largest ICF residential development in the USA.

The project manager said the potential for energy savings is the greatest benefit. Because of the extreme heat the local residents' energy bills takes a hammering. Cooling a 2,800sqft house - the average size of a Rio Del Sol home - can easily be \$600-700 a month. By using the ICF construction he expects residents will save an estimated 50-80% on their cooling bill. (The average high temperature during summer is 42°C, with an average annual rainfall of less than 135mm.)

This is a high end development - the houses even have wiring installed for the cable TV and speakers in the outside media centre next to the pool. Even though the houses may be positioned closer together, the residents will still enjoy privacy and a noise-free environment because of the ICF benefits of added noise reduction.

A crew of 16 is able to stack the walls of four houses in four days and then pour all of them on the last day of the week. The interior walls then start the following week. They have shown that as the crews become more efficient, they appreciate as much as 30% savings in labour costs.

The blocks on this project are finished with a 25mm thick stucco coat with steel mesh and black paper as shown. In NZ we simply use acrylic plaster systems with fibreglass mesh reinforcing.

ICF's on Show

In January the team at Styrobeck Plastics attended two major building trade shows in the USA. The International Builders Show was held in Orlando and in Las Vegas was the World of Concrete Show. There were wonderful displays of the varied ICF products as well as a number of interesting accessories.



ICF's are becoming a major force in the North American building market. In fact ICF's are now the third most popular building system used in residential construction, and the fastest growing building material in the US market. There has been significant growth each year and over 100,000 homes were built last year alone. There are around 50 manufacturers of ICF's in the US and around 20 in Canada.



There was a lot to learn and absorb and we will be able to share some of that, so stay tuned.



Story courtesy of Concrete Homes Magazine January 2005 edition published by Publications and Communications.

A solid core of concrete within a sandwich of insulation able to be built by any trade allowing quick and easy concrete installation

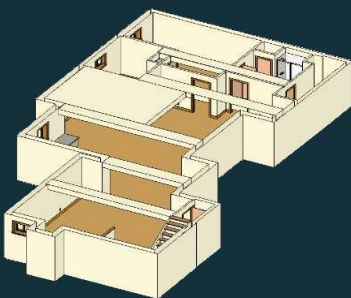
Creating the Perfect Insulated Concrete Wall

Deep Thoughts



With almost 140,000m² of exhibition space and over 104,000 attendees, there was plenty going on at the International Builders Show in Orlando. Everything was massive, for example the walkway overbridge between two of the halls was over 500m long and had three (3) travellers!

The Show was full of exciting products, many different to what we can see here in NZ, such as a range of flexible rubber architraves and mouldings that easily follow curves and arches (and allow for uneven wall finishes). These come on rolls and can be painted in the normal manner and look identical to custom made plaster mouldings.



There were quite a few displays of basement windows, exits and ventilation. This raised the question: Is there any reason why we don't build basements in NZ? This is a great way to increase the living space without encroaching on the height to boundary or the floor footprint limitations. Ambionse is an ideal solution as it can provide all the structural and insulation requirements for a basement, in one step.

ICF's Will Protect Your Home



Surface damage to ICF wall caused by speeding car

The strength of an Ambionse ICF wall will create peace of mind allowing you to sleep peacefully through any storm. One ICF product in Florida protected a wise couple from two incidents last year.

Early one morning in June, as the owners quietly slept inside their ICF home, trouble was brewing outside. According to police reports, an intoxicated driver lost control of his vehicle, left the roadway and slammed into the exterior wall of the home at a speed of 90 mph.

The ICF wall's STC rating of 48 offered the sleeping couple no clue of the disaster. Stirred

awake by a light thud, the owner leisurely strolled through the house assuming a household object had fallen to the floor. To her surprise what she found was a set of headlights shining brightly through her living room window.

The driver was not injured, but his car completely lost the battle with the ICF wall and was totalled. Proof of the ICF's strength was evident as there was only a 1m x 1.5m section of the wall's exterior stucco finish damaged by the crash, and was expected to cost only \$800 to repair. Emergency workers on the scene commented that the speeding vehicle would have penetrated the residence had the walls been concrete block or wood-frame.



The remains of the car

Later when Hurricane Charley threatened the same home the residents barely blinked an eye as the raging storm passed through their Florida neighbourhood. The homeowners said that they were one of few families in their neighbourhood to stay with their property. "Yes, we did stay in our home during the hurricane, we know our house is superior in strength to other homes."



Aftermath of Hurricane Charley

According to local media reports, the hurricane ravaged the area with wind speeds of 145mph gusting to 165mph. You would expect some major damage to a home but the ICF walls of this residence experienced no significant damage.

The family heard very little noise from the storm due to the high STC rating. "We knew the wind was screaming outside and we could see major debris flying through the air, but inside the house remained quiet."

When asked if he was surprised by the strength of the wall, the homeowner responded "I can believe it. I have known that this house was solid since the day I built it. Strength, wind resistance, and insulation are the reasons I chose the ICF."

Photos and story courtesy of Concrete Homes magazine

New Handbook Available

We are proud to announce the arrival of the Builders Guide booklet. This little one is intended to assist the builder on site on the basics of building an Ambionse wall and is small enough to fit into a builders apron pocket. It will be the quick reference guide for the builder on site, but will not replace the full Ambionse Manual.

To get your copy or either the Builders Guide or the Ambionse Manual, please call us on 0800 AMBIONSE.



Create a Feeling!



Builder's Guide



Ambionse
Styrobeck Plastics
139 Roscommon Rd
Manukau

PO Box 9 Drury
Auckland

Ph (09) 278 7175
Fax (09) 278 7175
craigc@styrobeck.co.nz

www.ambionse.co.nz

