

LOW COST HOUSING for AFRICA



The key points clearly demonstrated in the project:

- SIMPLE TO BUILD
- SPEED of Construction
- REDUCED MAN HOURS
- LOCAL UNSKILLED LABOUR
- LOW COST
- ENERGY EFFICIENT

Recently opened to great applause in West Africa is the first of a whole new generation of low cost homes – in Beco WALLFORM.

The demonstration unit has been built at the National Exhibition Centre in Accra, Ghana, where it will remain as an example of low-cost construction, built using local materials and local unskilled labour.

Built in a fraction of the time – setting out to official opening was just six weeks – at a fraction of the cost of normal construction, the comfortable, locally-designed family

accommodation has achieved everything required by the specification – and more, if the queue of visitors the day after the opening is anything to go by!

Although not as apparent as in colder northern climates, the benefits of the well insulated structure were immediately obvious to visitors to the WALLFORM demonstration home. The building interior was much cooler than normally anticipated and is kept cool by an air conditioning system much smaller than usually specified.

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From an old shelter...



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They've done it, so can you...



...to a new Shetland home



project, incorporating panoramic two storey glazing, a circular stair tower and underfloor heating as particular features.

Although "hindered" by the ongoing need to serve the customers for his thriving kitchen and carpentry business, WALLFORM

construction started and the ground-first floor

build was carried out in just two days ready for installation of the garage roof and installation of the first floor joists. To maximise use of the building envelope, **Jabroof Slimfix** (see below) panels are being used for the roof of this energy efficient dwelling, with high performance doors and windows completing the well insulated building. A key feature of the finished home will be one of John-M's own kitchens, as specified by wife Heather and, if he doesn't get a move on, a new addition to the family!

When John Tulloch first saw Beco WALLFORM in a trade magazine back in 1999 he knew was the way to build his next house on Shetland, the most northern part of Britain. On these windswept islands, exposed as they are to our most extreme weather conditions, energy efficiency is acknowledged by everyone as a key performance factor in any building and the islanders have always been keen to incorporate higher standards to make life more comfortable. It was evident when

Beco WALLFORM was exhibited recently at the islands' biennial Ideal Homes Exhibition that visitors to the show were very well informed about the benefits of good thermal insulation, and this reflected in the large number of enquiries received.

John Tulloch, or John-M as he is known locally, researched the building method thoroughly, travelling as far as Devon to visit sites and discuss the pros and cons of the WALLFORM system. The contacts with various builders and clients confirmed John-M's decision to use WALLFORM 313 for his new home and so the search for the perfect site finally got underway, resulting in a wonderful plot in Cullister with wide open (and exposed!) southerly views.

From his own initial design, local architects Redman & Sutherland completed the final plans for the



VENCEL RESIL LAUNCHES NEW JABROOF SLIMFIX LITERATURE

Vencel Resil, the leading producer of expanded polystyrene (EPS) has developed and launched its new literature for Jabroof SlimFix, the insulated structural pitched roof system.

Jabroof SlimFix consists of a sandwich construction incorporating a low lambda EPS core and moisture-resistant chipboard facings to provide a warm roof construction. This reduces the risk of condensation and removes the need for ventilation of the roof void.

The new literature shows how Jabroof SlimFix can be utilised in the majority of constructions where traditionally unused roof space can be better employed. It

describes the product benefits and construction methods as well as the accessories that are available. Typical section drawings and detailed span measurements are also incorporated in the new literature.

Jabroof SlimFix is available in a choice of lengths providing fast, economical installation. The units are simply lifted with a crane and positioned in accordance with the Vencel Resil layout drawing provided.



For a copy of the new Jabroof SlimFix literature or for further information about Vencel Resil and its products log on to www.jablite.co.uk or call 0870 200 7575



For better insulation and low energy costs, tell your builder, "U Can Do It!"

Heating bills have risen significantly in the last twelve months as a consequence of the dramatic increases in the price of oil and gas around the world. This trend of increasing prices is set to continue. The UK is becoming particularly exposed to external influences as our own energy supplies become exhausted and efforts to develop renewable energy methods prove to be expensive and relatively inefficient.

More practical and effective action to reduce consumption and conserve natural resources is to improve the energy efficiency of

our buildings' fabric (- **buildings still consume nearly 40% of all the energy we use**). By increasing thermal insulation in both new and existing buildings the energy loading immediately decreases. This not only reduces energy requirements and conserves existing resources, but improves the quality and comfort standards of the buildings we live and work in. Beco WALLFORM customers building their own homes are, like most selfbuilders, looking to the future and already build to much higher standards than required by the Building Regulations or

promoted by the building industry. Better insulation now is a small cost for a big benefit from now on – for the life of the building!

The ICFA has launched a campaign to encourage better insulation, particularly in walls which comprise the largest external surface area of the building. An insulation value of 0.2 W/m²K is not difficult to achieve in today's wall constructions – this is **an improvement of between 40 and 60% over current practice**, depending on the method of measurement and **this can be achieved now**.

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The official opening of the house was attended by His Excellency Alhaji Aliu Mahama, Vice President of Ghana, Honourable Hackman Owusu Agyemang, Minister for Works and Housing, and many other senior government and industry representatives. Following the outstanding success of this demonstration of low cost local construction discussions are well underway to expand the application of WALLFORM building for a number of housing and commercial projects in West Africa.



Name:

Self-Builder

Trade Enquiry



Address:

Profession:

Project:

BECO

Postcode:

To build in: 1 year 2 years 3 years

Phone No:

STEP AHEAD with MARMORIT RENDER



Step one Marmorit SM700 fibrous reinforcing mortar is applied to a thickness of 5mm.

SM700 is renowned across Europe as one of the best renders to be used with polystyrene. It has exceptional adhesive qualities which, along with modern fibre technology, ensures that it is extremely strong and robust.

Step two Marmorit reinforcing mesh is trowelled into the wet SM700.

The fabric reinforcing mesh is used to restrict thermal movement of the renders and provide a crack free render system.

Step three Apply one of the Marmorit through coloured finishes.

Marmorit produce one of the largest

ranges of through coloured finishes available in the United Kingdom. Designed to withstand UV light, these finishes retain their colour and require no further painting. If the façade should get dirty due to atmospheric conditions, a power washer may be used to clean down the wall.

Marmorit finishes are available in the following grain sizes: 0.6mm - 1.5mm - 2mm - 3mm - 5mm - 7mm - 10mm.

Marmorit rendering systems offer a wide range of finishes in 141 colours to ensure you find exactly what you want. Years of extensive research and development has produced high quality, long lasting, maintenance-free renders.

Marmorit UK GmbH telephone 0117 982 1042

Email us at enquiries@marmorit.co.uk



The KISS principle -in practice!

The latest accessory to the WALLFORM product range is a simple little component to make preparation of lintel and roller shutter soffits easier and quicker.

The soffit infill is a simple moulding which just clips into and fills the castellations on the underside of the formwork casings spanning over door and window openings. This evens up the surface ready for direct application of finishes, avoiding the need to either trim off the castellations or fill them with plaster or any other filler.

KISS - Not just a case of Keep It Simple, Stupid but also - Klick In Smoother Soffits!

A view worth waiting for!

In our last newsletter we said that one of our projects in Shaldon, Devon would be featured on "Grand Designs" on Channel 4 about now. The programme will now be screened in August/September, and just to give a little more idea about the project, here is a view of the house when it was under construction. Unless you live in Shaldon, you will have to wait for the rest!



Energy Savings

Beco **WALLFORM** insulation is a **passive energy system** - once installed it reduces energy loss consistently and permanently with **no maintenance** required and **no bills to pay**, even as the cost of energy increases!



Wall Insulation Reference
U-value (W/m²K)

0.30

WALLFORM 250

0.19

WALLFORM 313

0.14

WALLFORM 375

0.11

WALLFORM 438

passive energy buildings

