

Walls - Architects Notes

Euromac2 Walls

Introduction

Euromac2 walls are made from two insulating layers made from high density Styropor, connected to each other by metal struts and reinforced by horizontal steel cast into the Styropor.

As one of the most advanced ICF, Insulated Concrete Forms, The combination of Styropor and steel reinforcement enable one to build a solid insulated structure. The range also includes special elements enabling one to build varying heights, round walls and wall angles from 0 to 180 degrees.

The full manual has details on the products, installation and the technical properties described.

Directions for use

The layers or courses, of Euromac2 are assembled by simple dry jointing, with crossed joints. To stabilise the wall and maintain a level surface, Euromac2 Struts are fixed to the elements to ensure that the wall is straight, level and vertical. The Euromac2 acts as shuttering and is then pumped with concrete, N25, 8-10 aggregate, 85 slump.

Structure

The Euromac2 walls are therefore solid concrete and have all the advantages of such structures; additionally combined with the Euromac Flooring system a full insulated structure can be achieved.

Thermal Insulation

U Value = from 1.6 to 3.0

Total suppression of cold bridges

Rooms can be warmed up quickly, resulting in even lower heating costs.

Sound Insulation

The insulation for sound are excellent as the structure is a solid concrete combined with the insulation material this gives excellent impact and ambient sound proofing properties.

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External finish

A sprayed plaster render can be applied, or any alternative subject to suppliers recommendation, note however the solvent based adhesives cannot be used as these effect the Styropor.

Internal finish

Spray plaster or tape and skim can be used.

Increased Area.

As the Euromac2 walls have a standard thickness of 250 mm there is additional living space as compared to a conventional 300 mm.

Speed

Because of the design Euromac2 allows for speedy build, one can estimate comfortably 1 m² per 15 minuets for an experienced team of three.

Economic

In order to build Euromac there is no wet work in construction.
The construction is not weather dependant.
Low skill, single team for all the build educes waste and time managing labour.
Quick, resulting in lower on site costs.
Higher insulation resulting in lower on going heating bills.

General Notes

- | | | |
|-----------------|---|---|
| Large Elements | - | 1750 mm x 600 mm = 1.05 m ²
Rapid, painless and clean work. |
| Light | - | 3,3 kilos per m ²
No lifting equipment |
| Complete System | - | Walls / Floor / Roof.
Low skill high speed. |
| Dry assemble | - | Not weather dependent. |
| Concrete pumped | - | One story at a time - maximum 4000 mm in a single pour. |
| Watertight | - | Water-repellent and rot-proof. |

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Architects Notes for planning.

- Metric based system based on 50 mm receivers on the horizontal
- Metric based system based on 100 mm steps on the vertical.
- The most efficient construction is based on 250 mm centers.
- Walls are 250 mm thick
- Round walls available at no increase in the overall costs.
- The system is based on a square meter price and therefore there is no addition costs for more complicated designs.
- Quotations can be given for materials only or a supply and fit.
- Highly insulated building, resulting in low running costs.
- Services can be placed into the walls prior to pouring.
- Single team construction.
- Measurable and manageable progress, easy to manage easy to monitor.
- Limited waste.
- Limited tool requirements.
- Concrete structure.