
BUILDINGS
THAT DON'T
COST THE EARTH.
GLB
GREEN LIFE BUILDINGS


econstructie
BOUWMAAT

FROM THE FOUNDER

Chris Williams, Managing Director, Green Life Buildings Ltd

Nearly 20 years ago, I came across an innovative construction system unknown in the UK: a unified system for building houses, apartment blocks, warehouses, factories or corporate headquarters. This Green Life Buildings brochure - marking the establishment of our EMMEDUE EMMESMART factory – is a small but significant step on the path to top quality construction with less impact on our environment. Our plant will supply a uniquely adaptable building technique that cuts costs, carbon output and construction times. Yes, a building fabric and system that are quicker, greener and cheaper than traditional bricks and mortar or steel or timber frame construction. A bold claim maybe, but one I proved with the house I built 15 years ago. It is my family home to this day.

So what has taken so long? UK builders and regulators may have been resistant to innovation. But a recent report on the construction industry that it must "modernise or die" is now being heeded. A willingness to learn and be inspired by new ways of doing things is the key to progress. I have been inspired by the EMMEDUE team - and their buildings round the world – to bring the EMMEDUE product to the UK. With Rick Walker and all at Green Life Buildings, I urge you to engage with this technology, approved by the Government as a Modern Method of Construction.

35

Years
of Experience

1985

UK Case Studies
available from 1985

OUR MISSION

We want to supply a building system fit for the 21st century: a modern structural fabric and advanced construction technique to ensure comfort, energy efficiency and safety in every home and workplace. Our product will protect your purse and our environment.

Building safety is crucial. Recent fires and building collapses have rightly focused public attention on safety. It is why we so passionately believe in our basic structural material – our expanded polystyrene panel – and our construction system. The material itself is exceptionally fire resistant. And our unified construction method using the same basic material throughout – to form floors, stairs, roofs as well as walls – eliminates the weak link of some tradtional building methods. We like to keep it simple. Our system works for any type of structure: for a normal family home to a flamboyant architectural statement suitable for a hitech corporate HQ. It works for a warehouse or factory or an apartment or office building. Green Life Buildings helps you lower your costs and your carbon footprint during development and when the building is occupied.

Keep things simple and save time, money and energy with our Advanced Building System. GLB's modular building panels combine structural strength and energy-efficient thermal insulation. Together, we can say goodbye to energy-guzzling homes.

REDEFINING MODERN METHODS OF CONSTRUCTION

Green Life Buildings is offering an innovative building system which forms the structural basis of hundreds of thousands of buildings constructed world wide under some of the most testing conditions. The M2 Advanced Building System with its M2 Sandwich panels that GLB has brought to Britain was established in Italy and reflects 35 years of italian engineering expertise and technological development.

LOW CO^2

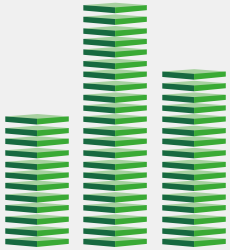
Up to 40%* less CO2 in the construction of the building. Up to 65%* less when in use.

The M2 construction system ensures indoor warmth and comfort. The top-level insulation provided by its Expanded Polystyrene (EPS) panels drastically reduces a building's energy consumption and carbon emissions throughout its life span, promoting sustainable development and slowing global warming. A comparative carbon footprint analysis showed that the M2 single panel building system produced approximately 60% less C02 than a traditional reinforced concrete building with masonry facing.

*data taken from a report by "PEP – Promotion of European Passive Houses – Energy Saving Potential"

VERSATILE

The M2 building system gives full design flexibility offering a complete range of building elements: load-bearing walls, curtain walls, floors, ceilings, roofs and stairs. The panels are easy to use in the construction of any type of structure, and can be cut on site to any geometric shape, flat or curved.



STRONG

The M2 advanced building system has undergone internationally recognised laboratory tests that prove the structural strength of its monolithic joints, meaning buildings can withstand earthquakes, cyclones or even explosions of over 29.5 tons per square metre.

SPEEDY

The efficient logistics of the M2 Advanced Building System reduce construction times by as much as 50% compared to traditional building methods. M2 panels are machine-made, assembly processes are optimised, leading to big savings on labour costs.

LOWER COST

Compared to traditional materials and methods, the M2 Advanced Building System and panels achieve better results at substantially lower cost.. A raw structure made with M2 panels can cost up to 40% less than a traditional structure of comparable market value.

FIREPROOF

M2 panels are made of self-extinguishing expanded polystyrene, completely encased in layers of reinforced concrete which cover the sides of panels and prevent combustion. Their fire resistance meets international standards with laboratory tests providing a 2 hour fire rating as standard.

SUSTAINABLE

Polystyrene, the main component of our product, has been approved and certified by regulatory authorities and agencies. It is safe, recyclable, non-toxic and self extinguishing. It is recognised as being totally eco friendly with the lowest environmental impact. It does not release toxic or harmful substances, and it has no impact on the health of those who produce or instal it.

EASIER CONSTRUCTION IN DIFFICULT SITES

Using the M2 Advanced Building System minimises disruption to neighbours and neighbourhoods where access is limited and the site surrounded by existing structures. For example, a crowded city centre site like this one in Amsterdam.

SEE FOR YOURSELF ⟶

BEFORE

M2 is versatile and ideal for working in sites with limited access.

DURING

M2 panels form the ground floor with more panels ready for use.

AFTER

M2 system supports any facade to match surrounding buildings.

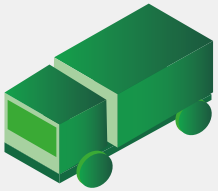
HOUSE BUILDING MADE EASIER – WE HAVE IT COVERED

THE BENEFITS

No Cranes

Everything can be carried on site by hand.

Our light, rigid panels, are handy, easy to carry and assemble even under the most difficult operating conditions.



1 Truck = 1 House

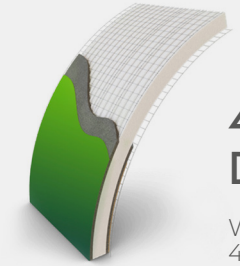
One truck holds the M2 kit – panels and cement – for a whole house.

Far easier than unloading 13 trucks full of bricks, sand, cement to build the traditional way.

5 to 6 weeks

A complete watertight house in 5 to 6 weeks:

GLB's Advanced Building System and M2 panels mean you can complete an average-size house from the foundation to watertight in 6 weeks or less



4,000m^2 Daily

We can provide up to 4000m^2 of kit per day

GLB can produce 4,000 square metres of M2 panels for structures from individual homes to large commercial buildings.

3,000 +

Capacity to supply material to build 3,000 houses a year

GLB can supply enough M2 kit to build more than 3,000 medium-sized family houses or a mix of individual dwellings and commercial structures.

Warranty

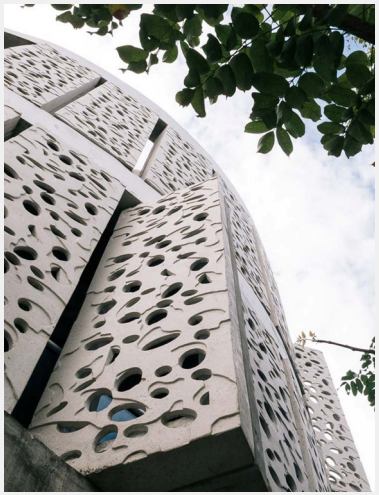
The M2 building system is a Premier Guarantee approved system that has undergone an extensive Lucideon weather test report to prove the strength of the system under UK weather conditions. Recent residential projects have gained 10-year structural warranty insurance from various providers, including Build-Zone, recognised by 97% of mortgage lenders.

premier guarantee Approved System

ARCHITECTURAL FREEDOM FOR IMAGINATIVE DESIGN

The M2 building system is tried and tested with some 100 million square metres of panels making up buildings round the world. They include the Coca-Cola headquarters in Ecuador and the Intercontinental Hotel in Panama.

Endlessly versatile, M2 can be used for residential dwellings, multi-storey buildings, social housing, and for commercial, industrial and public buildings.



BENEFITS OF M2 ADVANCED BUILDING SYSTEM

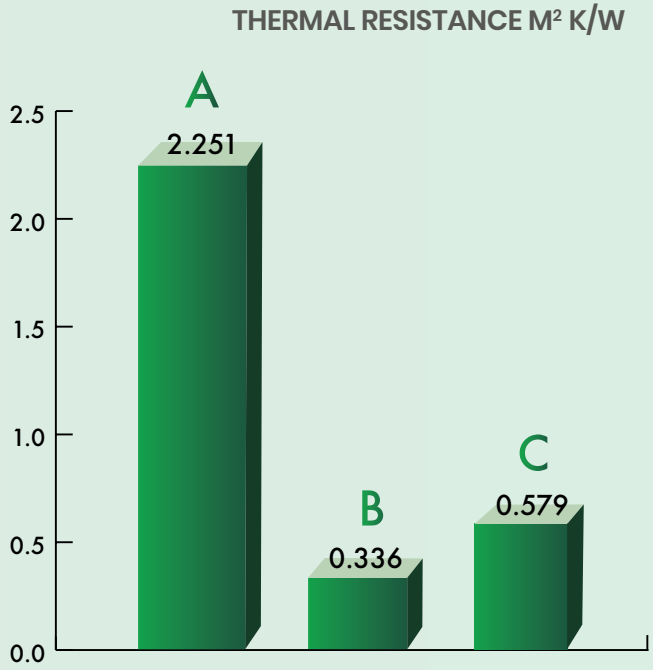
M2 panels far outperform other materials commonly used to form the walls of buildings

SUSTAINABLE & ENERGY EFFICIENT

Buildings constructed with the advanced M2 system are very energy efficient, more than meeting regulatory requirements. The insulating properties of their polystyrene core eliminate thermal bridges and ducts within the panels. The M2 System provides marked improvements in indoor warmth and comfort. **Its use reduces energy consumption, promoting sustainable development strategies.** Analysis of a prototype demonstrated a reduction of 60% in carbon emission compared to a traditional building.

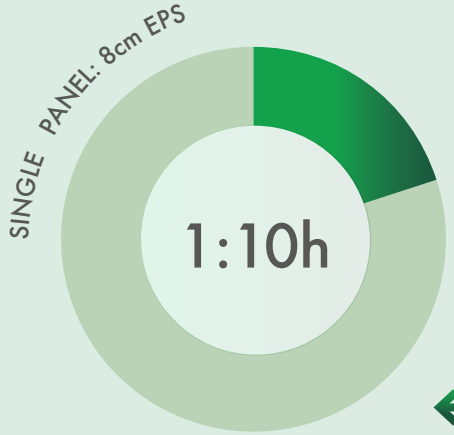
TYPE OF WALL

A Single Panel 8cm EPS
B Common Brick Esp.= 15cm
C CMU block 18x18x33cm

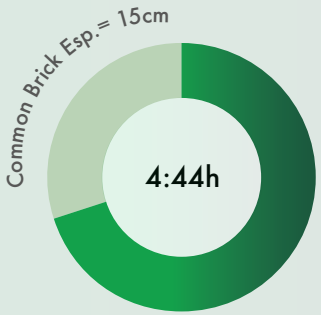


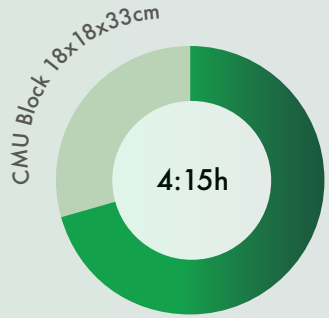
SPEED OF INSTALLATION

TIME IT TAKES (HR/M²) TO INSTAL & SHOTCRETE M2 SINGLE PANEL:



TIME IT TAKES (HR/M²) TO INSTAL TRADITIONAL MATERIALS:





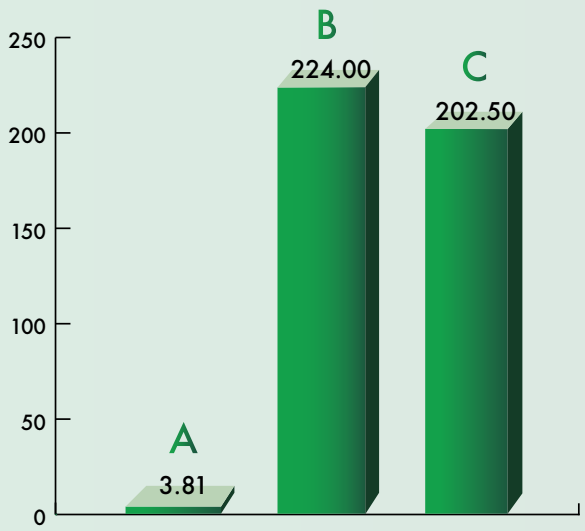
The **M2 Advanced Building System** provides the structure for buildings worldwide constructed under different conditions using labour of all types with varying skill levels. M2 panels are light in weight and modular, shortening construction times compared with traditional building methods.

LIGHTNESS AND SAVING IN TRANSPORTATION

M2 panels are rigid but light, making them easy to handle and transport even in difficult conditions. Without their shotcrete coat, **M2 panels weigh only 3.5 to 5 kilograms per square metre**. As a result, one worker can easily, on their own, handle a 3 metre high wall panel. Traditional building materials, by contrast, require far more logistical organisation. They also need specific on-site equipment to cope with the weight of bricks or blocks that go to build the same type of wall.

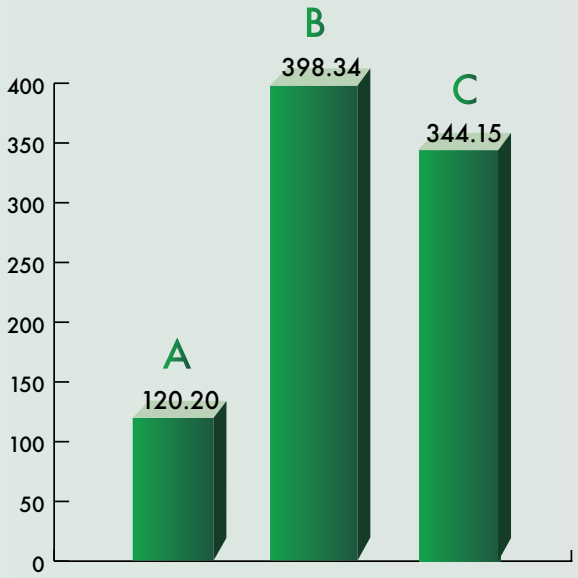
WEIGHT KG/M²

(to move it)



ENTIRE WEIGHT KG/M²

(shotcrete both sides)

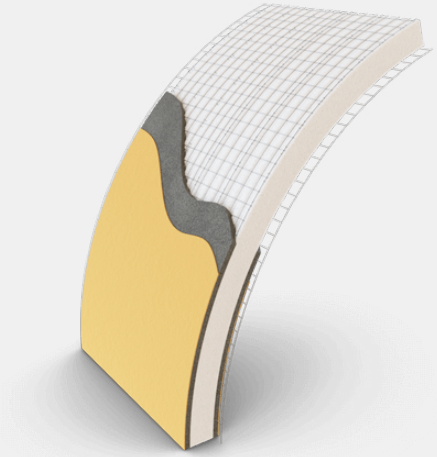


TYPE OF WALL

A Single Panel 8cm EPS
B Common Brick Esp.= 15cm
C CMU block 18x18x33cm

M2 PANELS: VERSATILE & ADAPTABLE

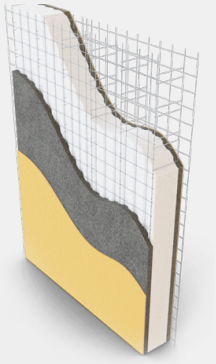
M2 Panels can be formed and cut to many shapes and sizes.



CURVED PANEL

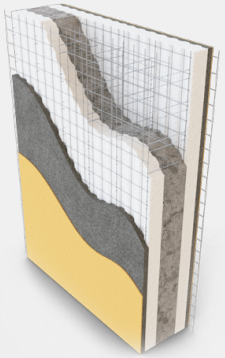
Our curved M2 panel, which can be made to almost any size, is unique in the world of construction. The panel in its metal mesh sheath is supplied flat from our plant, making it easy to transport, and is curved on site. The required degree of curvature is determined and created on site using a pneumatic rolling machine, specially designed for the M2 system.

This unique panel enables a builder to cover large surfaces quickly and efficiently and allows an architect unlimited freedom and creativity in designing a building's outer shape. The curved surface also enhances a building's air circulation, reducing potential humidity and improving thermal resistance.



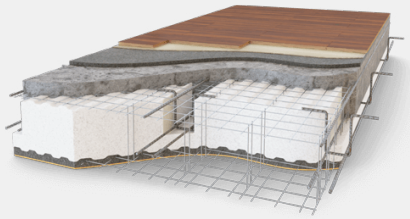
SINGLE PANEL

The M2 single panel consists of a spatial steel lattice enclosing a core of expanded polystyrene which is then finished, on-site, with plaster. These panels are ideal for the walls, party walls, partitions, curtain walls, floors and roofing of all types of buildings.



DOUBLE PANEL

The insulating double panel is ideal for reinforced concrete walls such as load- bearing and retaining ones. The double panel is made up of two basic panels, shaped as required and joined together by double horizontal connectors which create a hollow core which is then filled with concrete of strength to meet the project needs.

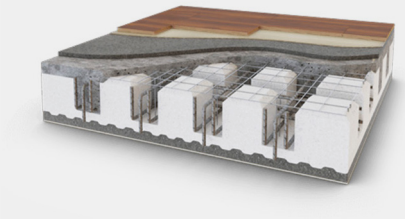


FLOOR PANEL

The panel can be used for both flooring and roofing with reinforced concrete joists. It provides significant advantages in terms of reduced weight, insulation, and rapid assembly. The M2 floor panel is a shaped polystyrene sheet which can be used for flooring and roofing with the addition of reinforced steel joists and then finished in cast-in-place concrete.

STAIRS PANEL

For the fast construction of lightweight, resistant stairs. The stairs are made of a single block of EPS, shaped to the required design specifications, enclosed within two layers of steel wire mesh which are joined together by electro welded steel wires.



LANDING PANEL

This panel is used to create landings, floors and two-way reinforcements and provides continuous insulation on the underside of the panel. The M2 landing panel provides the ideal solution for connecting landings to stairs made using the M2 stair panel.

EASY TO HANDLE

M2 panels are strong, easy to handle and quick to instal.

1. ASSEMBLY

The M2 panels are remarkably lightweight, which means one operator can easily handle them into position with no need for lifting equipment.

The single panel is also used for flooring and roofing.

2. JOINING PANELS

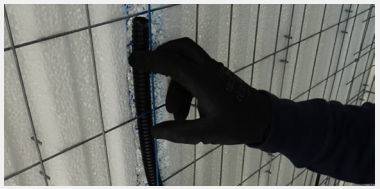
Once in position, panels are clipped together using traditional crimping tools.

3. UTILITY CHASES

The utility chases in the panel are easily made by melting the panel behind the wire mesh with a hot-air gun or other heat producing tool.

4. UTILITY SYSTEMS

Service pipes are quick and easy to place behind the wire mesh.



The utility systems are then run and positioned simply and quickly behind the wire mesh.

5. SHOTCRETE

As a final stage, the panel is sprayed with a coat of shotcrete.

Photography :
EMMEDUE S.P.A
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Ademchic.com
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JOIN US IN OUR CORE MISSION TO CREATE SAFE, EFFICIENT AND COMFORTABLE BUILDINGS THAT DO NOT COST THE EARTH.

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