



TECHNIUM
SPACE

WELCOME TO THE FUTURE

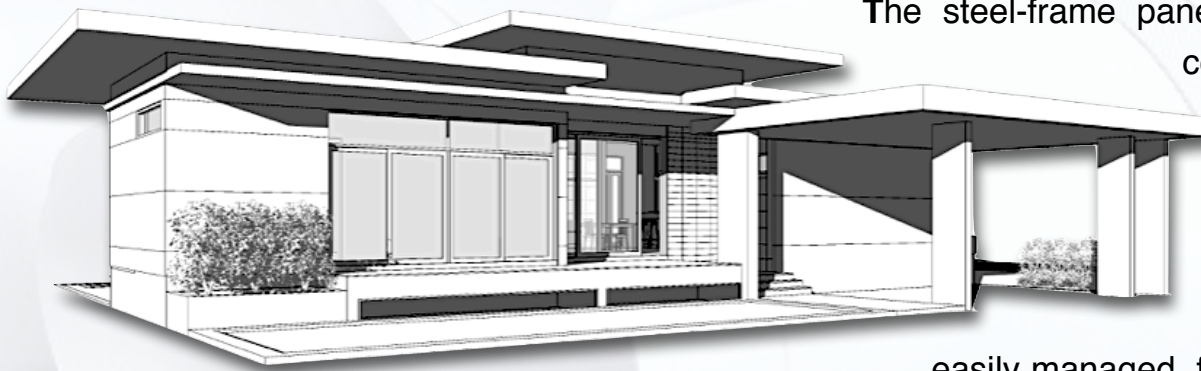
STEEL-FRAME
FOAMED-CORE
PANEL



GENERAL AND
TECHNICAL DATA

For those seeking the opportunity of a bespoke design prefabricated house that could easily be a 'Do-it Yourself' / 'Self-build' project, or for those simply requiring an easily manageable, easily handled and easily assembled system, requiring little or nothing in the way of plant and machinery, then our multi-patented Steel-Frame Foam-Core system is definitely the answer.

Despite the ease of assembly, it provides the opportunity to have your own design, advance-stage prefabricated house, capable of being assembled and erected in just a matter of days with a small team, and without the need for any large plant or equipment, *(or even any real 'expert knowledge'!)* yet still delivering all the similar qualities, long-term durability, specifications and global suitability of our long-established 2D Modular Section format.



The steel-frame panels are dual-faced with FCB, with the interior being completely filled with a patented foaming concrete. The result reducing total panel weight, whilst providing extreme strength, plus excellent thermal (*R-56*) and acoustic (*Min. 30db*) sound-reducing qualities.

Unlike their large-panel counterpart, all is based on easily managed, fully-integrated 146mm panels, *(96mm available)* of just 600mm width. *(Smaller widths being manufactured / provided as applicable to any specific elements of a project.)*

Panel length *(or more specifically height)* is 2800mm, although for extra high ceilings etc, then up to 3500mm is also available. All combined meaning individual panels can be handled and positioned without mechanical aid. The interlocking design makes this process not just simple and quick, but importantly totally aligned and accurate.

Window and door apertures are pre-formed, with internally concealed electric conduit and plumbing pipes pre-installed in-factory. If all that isn't enough to tempt you, then rest assured, the price will. *(Available as 'Structure only' and also as 'Fully Inclusive'.)*

All sounding too easy / too good to be true?

Check out our animated installation video, and also our time-lapse assembly video.

Our Technology
- Your Space



EASILY MANAGEABLE, SIMPLE AND RAPID INSTALLATION,
HIGH SPECIFICATION, BESPOKE BUILDING SOLUTIONS.

An innovative, Environmentally-Friendly and Energy-Efficient building solution for both large scale developers and 'home-builders' alike.

Requiring minimal skills, plant or machinery, yet still maintaining the flexibility and freedom for totally bespoke design.

MAIN STRUCTURE

1. **Wall** : Steel-frame Foamed-Cement Panel
2. **First Floor Base** : Steel-frame Foamed-Cement Panel
3. **Roof Beams** : Built-in Galvanised Steel
4. **Roof** : Steel-frame Foamed- Cement Panel
5. **First Floor Trusses** : H Section Steel

DOORS & WINDOWS

6. **Window** : Aluminium or uPVC Thermal-break
(Single or Triple Glazing Optional)
7. **Door** : Aluminium, Wood or uPVC
8. **Main Entrance Door** : Steel Security or Wood

FINISHES

9. **Floor** : Ceramic Tile, Hardwood, Laminate
10. **Wall** : Latex Paint, Culture Stone, PVC, Cladding . . .
11. **Ceiling** : Gypsum Board, PVC, Aluminium Panel . . .
12. **Roof** : Subject to style. E.g. Asphalt Shingle, Metal Deck, Ceramic Tile, Wooden Decking . . .



i-Technology



1. RING BEAM

Fitted along the top of all wall sections ensuring that all elements are aligned and firmly connected.

4. PANEL SURFACE

Fibre Cement Board

(Fitted to both faces)

High specifications that include:
Fireproof (A1), Waterproof and Impact Resistance.

6. HOOK & HOLE DESIGN

Enabling a **Rapid Assembly**, providing a **Fully Concealed Jointing & Fastening Solution** to any panel application.
(Simplifying and speeding installation.)

7. STEEL FOUNDATION BEAM

Ensures walls are correctly aligned and securely connected to the foundation.

2. MALE / FEMALE ASSEMBLY

Easy to align and assemble.
Improves Product Performance.
Achieves more precise fitting and jointing.

3. BUILT-IN STRENGTH

Load-bearing Walls comprise of **Galvanized Steel Structures** to ensure superb strength and structural integrity.

5. FOAMED-CEMENT PANEL CORE

Cost-Effective, Durable, Strong and Resistant to the Elements.

(Provides excellent thermal and acoustic insulation and sound absorption qualities.)

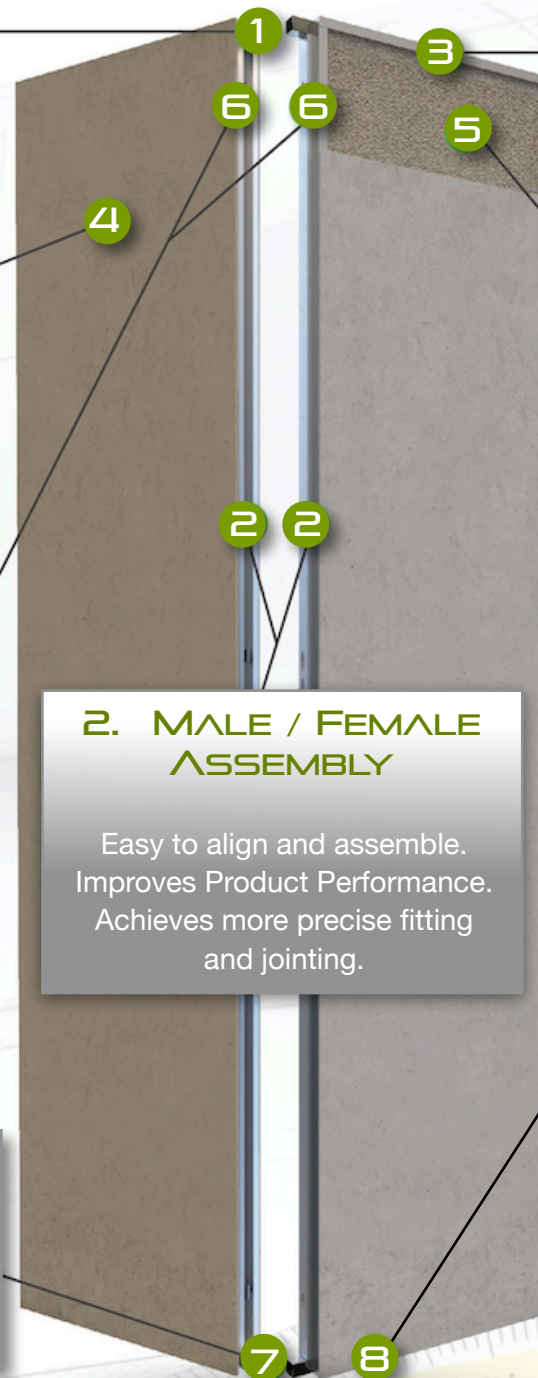
8. EXPANSION BOLTS

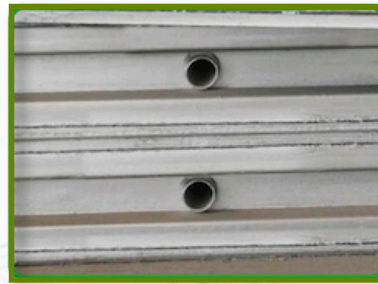
(CONCEALED FROM VIEW)

For secure and fail-safe connection of the base ring beam to the foundation. Ensures the integrity of the structure in all climatic conditions.
(Hurricanes, Earthquakes, etc)

9. STANDARD WALL DIMENSIONS

2800mm x 600mm x 146mm
(Maximum 3500mm + reduced widths to suit project.)





Conduit & Water-pipes Pre-installed

Top Ring Beam

Inner-core Insulation (Foamed Cement)

Galvanized Steel frame

Fibre Cement Board

Foundation Ring Beam


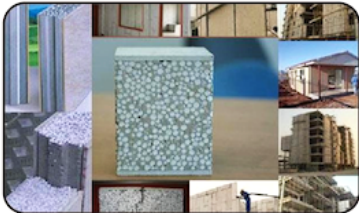

Standard Size 2800mm

600mm

The entire **Housing System** comprises an **Integrated Steel-Frame Structure, Edge-to-Edge Insulation, in-built conduit for both Water (pressure tested) and Electric systems**, along with **Pre-formed Door and Window apertures. Advanced and Multi-Patented Technology** resulting in both **Energy Efficiency** and **Ease of Assembly**.

MARKET INTELLIGENCE



Construction Format	Steel-frame Foamed Core House	EPS Foam House	Brick & Block House
Specification Detail			
Product Lifespan	More than 50 years	+/- 30 Years	+/- 50 Years
Fire resistance (Class A1)	2 Hours	2 Hours	2 Hours
Installation / Assembly (Reference: 50m2 house)	4 Man-hours without Equipment Support	8 Man-hours, plus additional structure then required	40 Man-hours +
Structural Integrity (House Strength)	600mm with Built-in Structure	Not Anti-Earthquake	Concrete Column
Decoration and Finishing	Easy, with Various Options	Time-consuming and complex	Time-consuming and complex
Earthquake Resistance	Up to 9 Richter Scale	Not Anti-Earthquake	Not Anti-Earthquake
Wind Load (Minimum)	180 km/h (Minimum standard supply)	120 km/h	118 k/mh
Sound Insulation	Min. 30dB (146mm Wall) (40dB - 96mm Wall)	30 dB	38 dB
Thermal Conductivity	0.081 W/mK (146mm Wall) TBC (0.135 W/mK - 96mm Wall)	0.221 W/mk	0.1035 W/mk

