



Greenspan®

...building solutions



Paramount Student Complex, London Road, Liverpool

Introducing



Sup-R-Wall™

Company Profile

Greenspan was founded in 1999 by Michael Cregan with the purpose of introducing new and innovative products to the Building and Construction Industry. These products are designed to speed up the build process and to provide cleaner and greener building solutions. Greenspan has continued to add to its product range and now the company market products for interior finishing, external insulation, exterior cladding systems and render finishes for residential and commercial projects.

In 2013 Greenspan launched the Sup-R-Wall building system. Sup-R-Wall is a lost in place formwork system which offers greatly reduced build times and delivers a wall which is much faster to finish. Sup-R-Wall can eliminate the need for wet trades on site as walls can be spray finished and painted.

Sup-R-Wall offers a strong monolithic structure capable of carrying structural loads while at the same time the panels are light weight and easy to handle. The panels are manufactured to order by Greenspan at its facility in Co. Limerick, Ireland. Sup-R-Wall Panels are sequentially delivered to site where they are stood, reinforced with re-bar, braced and then filled with concrete to form walls. These walls can be both load bearing and non-load bearing and buildings of up to 30 storeys can be built using the Sup-R-Wall system.

Sup-R-Wall can be used on buildings from single unit family homes up to multi-storey apartment and commercial buildings. It can incorporate any building design and is now being used in buildings across UK and Ireland.

Greenspan offers a system approach with technical backup and training for all the products it supplies.

Michael Cregan
Managing Director





Introduction

The Sup-R-Wall System is a simple, fast and economical pre-engineered and pre-fabricated modular system to form load bearing or non-load bearing walls. It consists of a range of custom-manufactured modular wall panels which are assembled on site and is compatible with any design or architectural requirement.

This patented technology can meet every need, from thermally insulated structural walls to lightweight concrete internal partitions and is suitable for multi-storey concrete structures and low rise construction.

It comprises of high impact moulded inserts bonded between two layers of fibre cement boards in the factory and erected on site to produce a straight-to-finish wall. The structure is created by filling the panels with concrete.

For high rise constructions additional load capacity can be obtained by providing extra reinforcing bars and/or increasing the grade of the concrete.





Manufacturing Process

The patented Sup-R-Wall system consists of specially designed plastic spacers made from 100% recycled plastic and fibre cement boards, bonded together with adhesive to form a very strong self supporting formwork, capable of being filled on site with concrete.

Fibre cement boards are measured and cut in factory conditions to ensure that the material is bespoke to suit the project design and conditions. Once cut, Sup-R-Wall boards are marked for placement of specialist designed spacer system to ensure correct positioning and ultimate strength within the wall system. To further enhance strength within the system, Sup-R-Wall spacers are bonded to the Sup-R-Wall boards and allowed to cure and set.





Installation Sequence

- Sup-R-Wall panels are delivered to site on pallets.
- All panels are pre-cut in the factory based on the project drawings.
- Each panel is labelled to identify its location and sequence.
- Before installation, the floor layout should be properly marked and identified and reinforcing starter bars placed in position.
- Panels can easily be erected manually.
- Reinforcing bars can be installed within the walls during erection process.
- Once erected, the panels need to be adequately braced and readied for the concrete pour.



Electrical Installation

The versatility of the Sup-R-Wall system as a portable lightweight construction method offers advantages throughout the whole construction process and in particular the Electrical and Mechanical trades offering better service integration and “off critical path” installation whereby quality is assured.

The sup-R-wall system creates a uniquely simplified installation process whereby all outlet boxes, switches, wiring, and conduit fit neatly into the sup-R-wall panels with removable covers for wiring access.



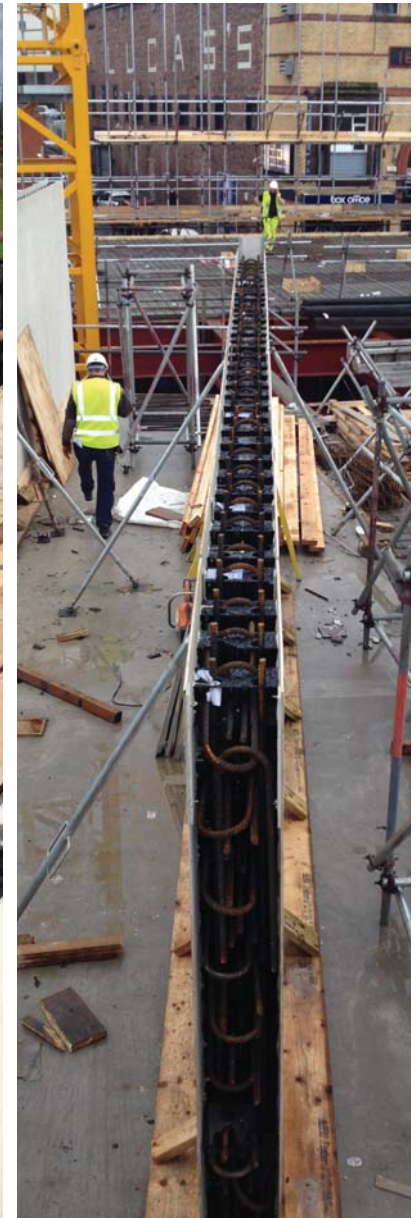


Reinforcement

The Sup-R-Wall system delivers more efficient labour and time saving processes during the construction phase.

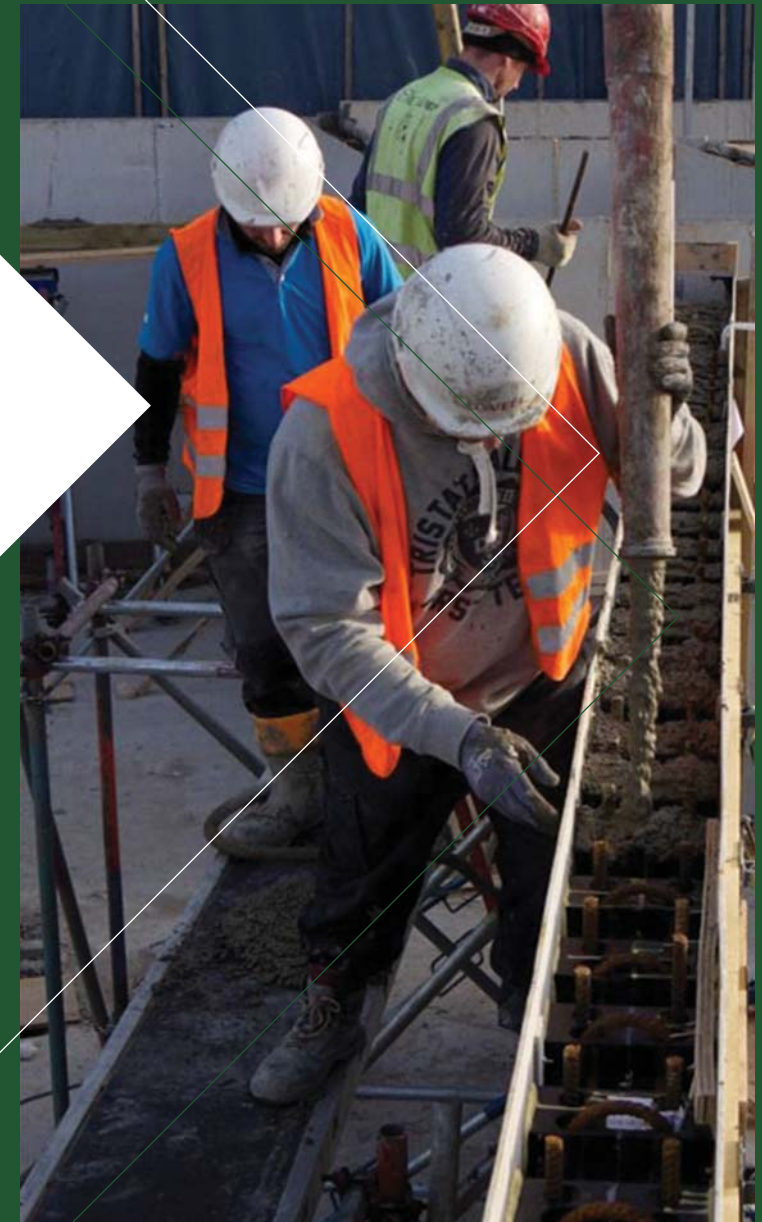
In particular the Sup-R-Wall system in multi-storey construction streamlines the reinforcement detailing and placement.

The Sup-R-Wall plastic spacers predetermine the location of horizontal and vertical reinforcing in compliance with the structural engineering requirements.



Concrete Placement

Concrete placement in Sup-R-Wall is similar to most other shuttering systems. However it is recommended to use a high slump concrete placed in layers not exceeding 400mm. The following layers should be placed when the previous layer is beginning to set. Ideally self compacting concrete could be used, however carefully compacting high slump, small aggregate concrete will achieve the required result. Additional bracing can be designed and used if required to achieve deeper pours.





Straight-to-Finish Internal and External Walls

Internal Sup-R-Wall surface can be taped and joint finished and then sprayed with Greenspan primer surfacer to leave a smooth even finish ready for final painting. External face of Sup-R-Wall can be finished using the various options such as:

- External Wall Insulation systems
- Brick and stone finish options
- Rainscreen cladding and Glazing systems





Multi-Storey Construction

Structural works account for the greatest resource usage on multi-storey reinforced concrete and hybrid construction and predominantly run along the critical path.

Making a conscious decision to avoid or eliminate labour intensive works by adopting the more labour-efficient sup-R-wall system can reduce construction times by up to 40% with early return on investment.

Sup-R-Wall standardisation and repetition of component sizes and connection details accelerate construction times by reducing its reliance on skilled labour and facilitates ease of construction.





Paramount Student Complex, Lime Street, Liverpool

Builder and Developer Benefits

- High quality durable finish
- Fast and clean method of building
- Build times reduced by up to 50%
- Reduced requirement for skilled labour
- Eliminates time consuming site practices
- Wet Trades eliminated
- Minimal wastage
- Straight-to-finish internal and external walls
- No specialized equipment required for erection
- Easy for conventional builders to adapt and use
- Minimal use of scaffolding
- Light, simple and easy to install
- "Push-Pull " props for plumb/alignment control during pour
- First fix electrical and plumbing completed prior to concrete pour
- Complies with Euro, British, Irish, American and Australian Building Codes
- Spacers hold re-bars in correct position, no time consuming rebar tie wires





Current Development

PARAMOUNT STUDENT ACCOMMODATION, LIVERPOOL

One of the largest planning application to be granted in Liverpool for a student accommodation. The iconic multi storey development of a 440 en-suite student bedrooms, Health Suite including a swimming pool, top class retail spaces with underground car parking forms an impressive gateway to the prestigious university city of Liverpool.





Current Development

THE QUADRANT STUDENT ACCOMMODATION, LIVERPOOL

This is a purpose built student accommodation development over seven storeys. It offers 204 en-suite bedrooms and 36 studios.

The student bedrooms are arranged in apartments of 8-11 units, each sharing a large communal area complete with deluxe kitchen, dining area and lounge.





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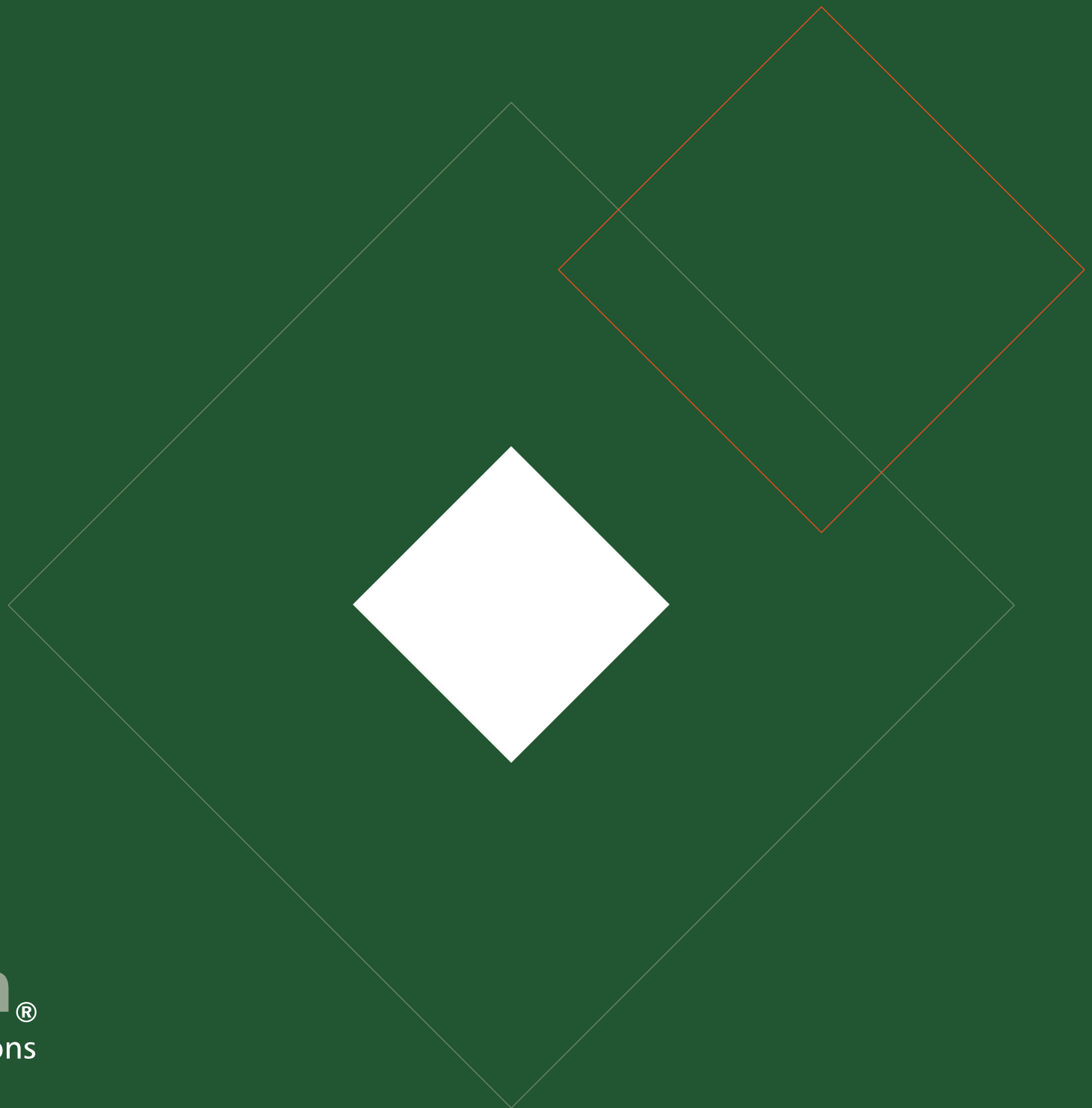
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