



t.i. dynamic facades

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T.I. Engineered Ston

(UHPC & GRC)

GRC & UHPC are cement-based materials, engineered to create structural and architectural details. Depending on the requirements of a project the appropriate material is chosen.

GRC is used worldwide to manufacture a vast range of precast products for the building and civil engineering industries. GRC can be formed into thin sectioned lightweight elements and provides designers, architects and engineers with substantial advantages when compared to other traditional concrete materials. Typical methods of forming GRC including casting and spraying, with a nominal thickness of 18mm.

UHPC is the leading edge of concrete innovation. The material's superior properties facilitates the ability to design thin, complex shapes, curvatures and highly customized textures, applications which are difficult or impossible to achieve with traditional reinforced concrete elements. The blend of fibres achieves ductile behaviours under tension, which eliminates the need for reinforcement. Appropriate batching, casting, finishing and curing procedures are of the utmost importance in order to ensure the highest level of quality, appearance and performance. Our panels are available in 15, 20 & 30mm thick to suit various project requirements.





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Fixing Methods

Undercut Anchor:

This is the preferred method to support large format, portrait orientated panels & soffits. This fixing method can apply to both cast UHPC and GRC panels.

Panels will arrive at site predrilled with an undercut hole to allow the anchor to expand into. The anchor is secured to a hanging clasp which hangs onto a horizontal rail. These rails can be gridded out ahead of the panels arrival to site.





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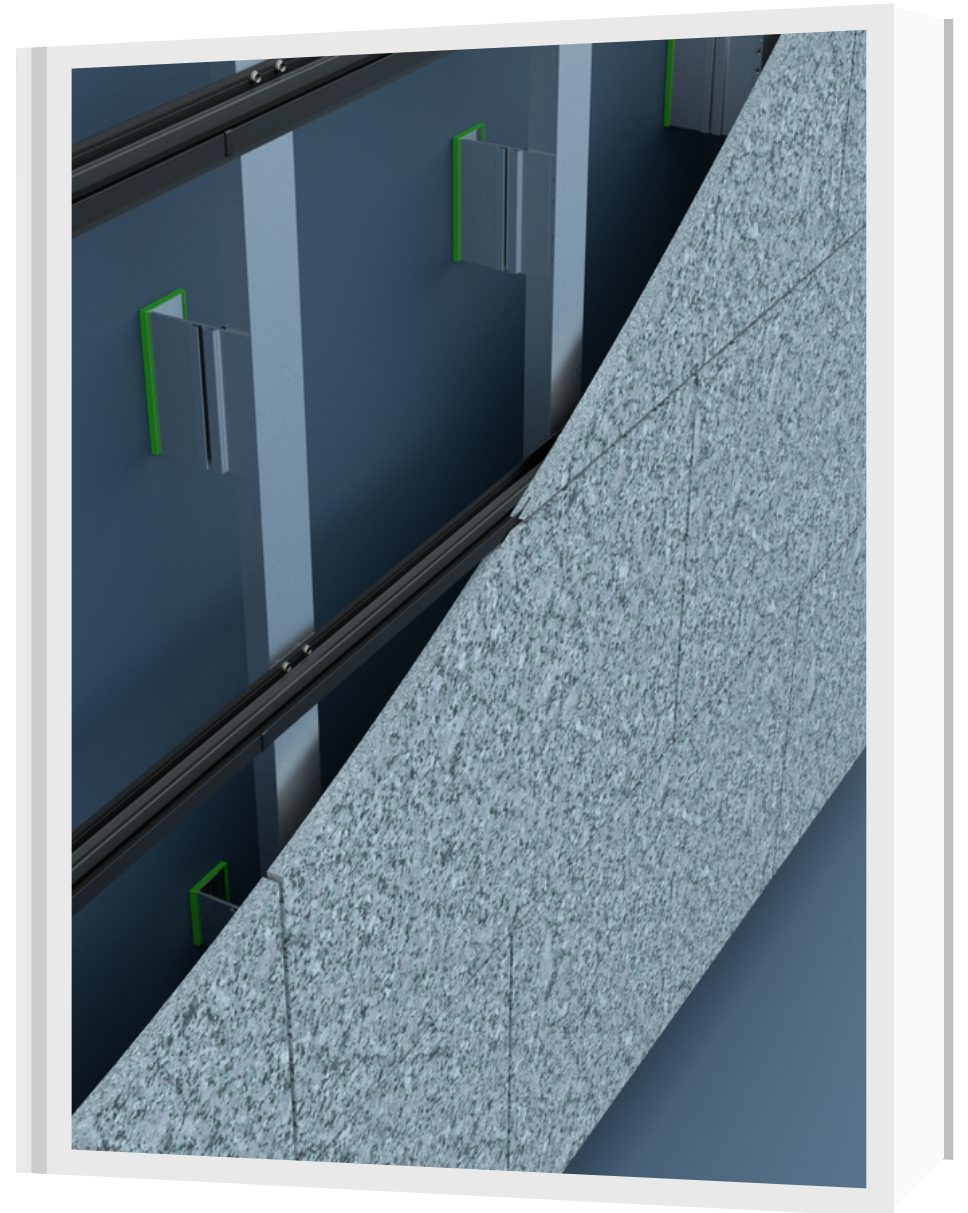
Fixing Methods

Kerf:

This method is for panels up to 1200mm x 600mm in size as it is more cost effective.

The kerf fixing is a gravity based fixing method. UHPC panels arrive at site with a 3mm wide x 13mm deep channel grooved into the top and bottom edges, the channels are retained mechanically with our TI Tracking horizontal rail carrier system.

The panels are lifted in and dropped into place. Each panel can be individually installed or removed for access without having to interfere with surround panels making the solution ideal for mast climbers & scaffolding access.





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Fixing Methods

UHPC Face fix:

At 15mm thick our panels can be fixed directly to the sub frame using colour matched rivets or screws.

Panels will be delivered to site with pre-drilled pilot holes. This is a cost-effective solution for projects on a tight budget.





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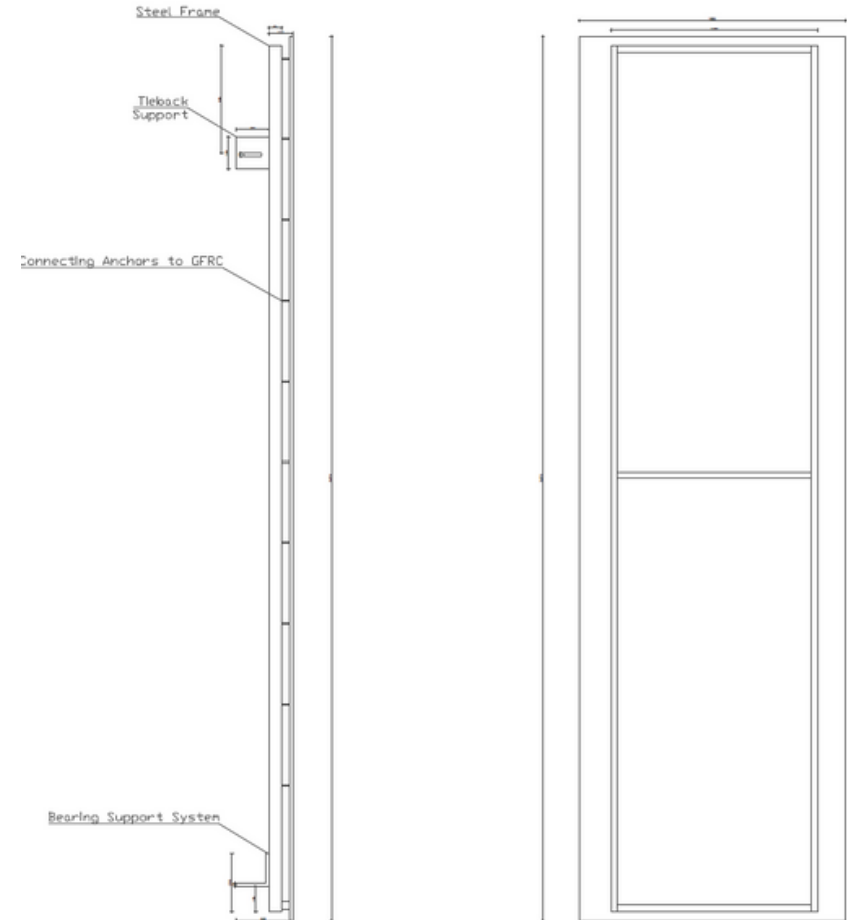
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Fixing Methods

GRC:

Our sprayed Grade 18 GRC panels are designed around the project requirements which is often bespoke shapes and sizes.

These panels typically come anchored to a galvanised steel support structure which is used to fix back to the primary structure. Due to the uniqueness of this method inhouse engineering services are available to ensure the systems suitability.





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Key Points

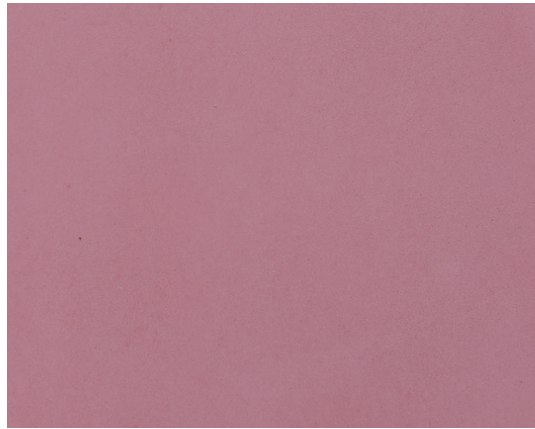
- System weight 33kg/m² at 15mm, 44kg/m² at 20mm & 66kg/m² at 30mm thick.
- CWCT tested at Vinci UK, achieving CAT B in impact resistance)
- Max rail centres tested 600mm horizontally (most economical)
- A1 fire rating
- Standard Panel sizes up to 3000mm x 1200mm
- Excellent undercut anchor pull out values.
- 10-12 week lead time.
- Lightweight compared to traditional masonry and heavier reconstituted stone rainscreen systems
- Can be installed any time of year, isn't weather dependant.
- Support systems can be gridded out and installed ahead of the UHPC arrival to site.
- Large range of colours & finishes available (such as smooth, sandblasted, acid etched, bush hammered, rockface & engravings)
- Flexible sizes Heights 150-3000mm Sizes 100-1200mm. Larger available on request
- Horizontal joint sizes 10mm. Vertical joint sizes 6mm, 8mm & 10mm.



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Swatches



Glasgow

Westview House
Gartferry Road
Glasgow
G69 0JE



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London

8 St James's Square
St James
London
SW1 4JU



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