

Hi-Panel

Engineered Structural Composite Panels
for light-weighting and rapid construction

HIGH QUALITY CUSTOMISED PANEL SOLUTION



Hi-Panel - Engineered Structural Composite Panels

Gurit specializes in the development and manufacture of fully engineered structural composite panels specifically designed for lightweighting in custom marine or industrial applications to save time, cost and overall waste.

Hi-Panel system provides the builders the ease and confidence to build with high quality composite sandwich infused panels, delivered ready for assembly with an easy to follow diagram and pre labelled parts.

Benefits of building with Hi-Panels:

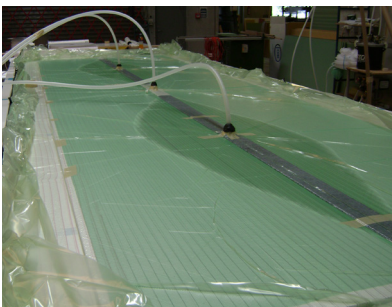
- Reduced build time with kitset panels
- Reduced set up and labour costs
- Reduced overall waste
- Precision assembly & fitting
- Panels can be pre-cut to shape
- Delivered as finished panels
- Improved quality control - high fibre weight fraction and low void content.
Controlled and verified cure levels and Tg, mechanical tested for survey requirements

Unique Features:

- Maximum panel size of 9m x 2m, less joining and less fairing, maximum strength and minimum weight
- Structurally engineered solution by in house team
- Access to a full range or core materials and reinforcements
- Peel ply surface both sides for bonding and surface protection

Customised Solution

Hi-Panels are custom made from a variety of Gurit materials, structurally engineered by our in-house team or manufactured to the customer's own specification. The panels are delivered direct as finished panels with maximum dimensions of 9 x 2mtrs or they can be CNC-cut to finished shapes. The shapes can be labelled and remain tabbed in the original panel, for ease of delivery and storage.



Panel infusion



9m x 2m maximum panel



Rebates for uni planks

Hi-Panel Construction

Hi-Panels are typically a cored sandwich panel using a Gurit epoxy infusion resin system, a structural core selected from our range; Corecell™, Kerdyn™ PET, Gurit PVC or Balsaflex™, and reinforcement fabrics such as E-glass, carbon or aramid in various weaves. Specialist surface finishes including enhanced cosmetic performance, or fire resistance can be applied during manufacture.

Infusion has been proven to offer superior mechanical properties over a hand lay up build or press methods. By achieving a more consistent fibre wet-out and higher fibre volume fraction, void content is reduced and structural integrity is improved. In addition, a more consistent and repeatable component weight is achieved. Large format panels with fewer joins helps save weight and preserves the full strength of the panel

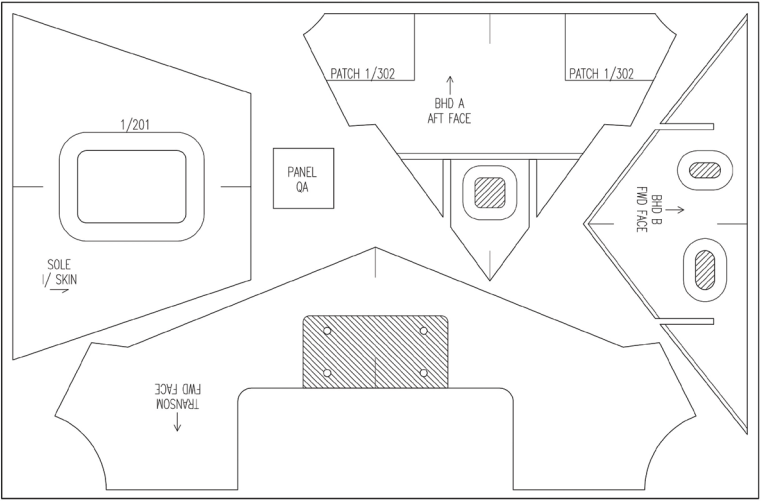
Digital Manufacturing

Hi-Panel harnesses digital manufacturing for rapid assembly. Machined on our CNC router to the exact dimensions from cut files generated directly from the designer geometry by our structural engineering team. Hi-Panel's precision allows it to be seamlessly integrated with other digital process such as direct machined parts or tooling as well as B³ SmartPac by Gurit. B³ SmartPac comprises all the reinforcement and core materials required for the job, pre-cut to the exact shape and size to fit the mould, and clearly labelled for alignment and location.

Manufacturing details such as service runs or interfacing with adjacent equipment or structures can be incorporated at the manufacturing stage.

Small craft structure panel drawing opposite showing parts and detailing pre-labelled.

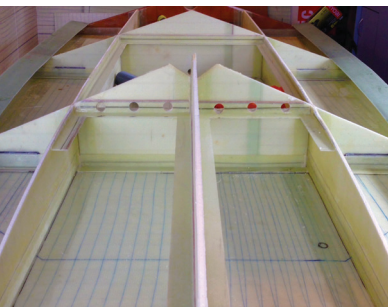
- Edge chamfers and trim lines
- Rebates and single skin areas
- Hardpoints and inserts fitted and pre-drilled
- Patching layouts and build instructions
- Tabbed and slotted for easy assembly
- Labelling, alignment marks and construction notes



Kitset deck furniture assembly



Interior modules



Hull internal structure, Origami 560

Health & Safety

Gurit is a company committed to 'Safety First' and that includes looking after the health and safety of our customers. Gurit has taken a leading role in proactively reducing harmful chemicals from its formulations and including innovations such as LRT (Light Reflective Technology) that helps our customers to minimise exposure. The Hi-Panel system further compliments this by removing the amount of wet resin applications required to build the structure. The remaining assembly process can be completed with gun-dispensed adhesives, or the Ampreg™ 3X laminating resins, both of which feature LRT technology.

Applications for Hi-Panel

Gurit works closely with all our industry partners in boat design, architecture and transport to deliver fully engineered Hi-Panel solutions to meet your custom and operational requirements.

Hi-Panels are typically used by boat builders for a wide range of structural and non-structural applications in the marine sector for hull, decks, internal structures, hatch lids, interior and decorative panels, as well as many other applications.

Suitable for:

- Power and sailing catamarans
- Recreational and pleasure craft
- Sports boats, kayaks and dinghies
- Caravans, RV's and truck bodies, sidewalls floors and interior furniture
- Awnings roofs, and exterior cladding move-able architectural structures, bridge decks and removable walkways
- Work boats and high speed ferries
- Cruising and racing yachts



Gurit Hi-Panel Projects	
Optimistic 560 RIB	Origami 5.6m RIB by Stimson Yacht Design, New Zealand
East by West Ferry	19m all-electric carbon fibre passenger ferry, by Wellington Electric Boat Building Company (WEBB), designed by SSC Marine, New Zealand
Vitamin Sea F45	45ft day charter Sailing Catamaran for Sailing Bora Bora, French Polynesia, designed by Bakewell-White Yacht Design
Evercat	36ft charter catamaran, designed by Evercat, New Caledonia
Alcedo 56ft Cruiser	56ft lift keel world cruiser by Stimson Yacht Design, New Zealand

Gurit is your competent partner in Marine for light weighting with its teams of structural composite engineering and materials experts.

Further Information

For more detailed information on the Gurit Hi-Panel, as well as the complete Gurit product portfolio, please visit: www.gurit.com/Hi-Panel

Please note: Hi-Panels are currently only available in Australia, New Zealand and the Pacific Islands.

For technical support, pricing or other enquiries, please contact info-nz@gurit.com