



Courtesy of Quantum Racing – © Libby Tomlinson

Prepreg Solutions for the Marine Industry

Prepregs for the Marine Industry

ACG's Marine Experience

Advanced Composites Group (ACG), the prepreg supplier of choice for the marine industry, offers customers quality products, experience and world-class technical support. While ACG's advanced resin systems and flexible production methodology have made it the ideal supplier for the high-performance marine industry, the company is also involved in many other market segments such as: production boats,

race boats, super yachts, commercial and military craft, and spar and component manufacture.

ACG's customers have an outstanding history of success in high profile races such as the America's Cup, the Volvo Ocean Race and the Audi MedCup.

ACG's manufacturing and engineering divisions benefit from the research and development

carried out in the group's Technical Centre. This facility, which is staffed by highly trained, fully qualified, dedicated technical support engineers, technicians and chemists, provides design, process development, testing and evaluation services. These services, allied to ACG's flexibility and responsiveness, enable us to offer unparalleled benefits to our customers.

Quantum Racing

Longitud Cero Composites S.L. used ACG's VTM®260 series prepregs and VTA260 adhesive films to manufacture the hull of Quantum Racing's TP52 yacht, which won the 2011 Audi MedCup Circuit.

These products have a history spanning multiple America's Cup and Volvo Ocean Race victories, and Quantum Racing's success further cements ACG's reputation as a manufacturer of world-beating materials in the race boat market.

Southern Spars

ACG has a prepreg supply agreement with Southern Spars, the world-renowned manufacturer of award-winning carbon fibre spars.

ACG's close working relationship with leading carbon fibre manufacturers ensures that the exacting standards Southern Spars demand for its structural materials are met in full and, working together, these companies have forged a relationship that has culminated in the development of new and innovative spars.

Holland Composites

Holland Composites uses ACG's customised MTM®57 carbon prepregs to manufacture the lightweight, ultra-thin laminate hulls and a variety of structural parts on its A-Class Advanced Racing Catamarans.

MTM®57 resins are toughened, 80 to 120°C curing, epoxy matrices offering flexible processing and a wide range of handling characteristics. These resins can be supplied on a variety of reinforcements and are available in ACG's standard prepreg and ZPREG® partially impregnated formats.



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© Advanced Racing Catamarans

ACG's Marine Product Selector Guide

Resin	Minimum Cure Temp'	Out life at 21°C	Tack Level at 21°C	Available Formats	Notes
VTM®264*	65°C	30 days	Intermediate	UD, Woven, Multi Axial, ZPREG®, Cross-ply	Low temperature curing prepreg used on large structures such as hulls and decks, has a good balance of toughness versus strength.
VTM®266*	65°C	30 days	High	UD, Woven, Multiaxial	Higher tack variant of VTM®264 for use with metal tooling or in a cold environment.
VTM®267*	65°C	30 days	Low	Woven, Multiaxial, ZPREG®	Lower tack and flow variant compared to VTM®264. Used on differentially coated products or heavyweight reinforcements where the resin is predominantly on the surface.
VTM®264FRB	65°C	30 days	Intermediate	UD, Woven, Multiaxial, ZPREG®	Epoxy based flame-retarded structural prepreg offering a good mix of strength versus fire resistance.
VTM®267FRB	65°C	30 days	Intermediate	Woven, Multiaxial, ZPREG®	Flame-retarded structural prepreg, lower tack variant used on differentially coated product.
MTM®57*	80°C	30 days	Intermediate	UD, Woven, Multiaxial, Cross-ply	Used for component and mast manufacture, offers flexible processing and a wide range of handling characteristics, ideal for many applications.
MTM®57-2	80°C	30 days	Low	UD, Woven, Multiaxial	Low tack variant, generally typically supplied as single sided prepreg, where the reinforcement is dry with a resin film on one side.
MTM®49-3	80°C	60 days	Low	UD, Woven, Multiaxial	High performance resin system with superior mechanical properties. Available as black variant. Recommended for autoclave use.
VTF261 (Cosmetic)	65°C	30 days	Low	Woven, ZPREG®	Transparent surface film offering reduced pinhole surface for clear coated carbon finish components. Also available in white.
VTF266	65°C	30 days	Low	Supported or Unsupported Film	Surface improvement film compatible with VTM®260 series prepregs. Moulds to a sandable, paint-ready finish.
VTA®260	65°C	30 days	Intermediate	Supported or Unsupported Adhesive Film	For use with VTM® and MTM® prepreg ranges. Available with reinforcement carrier to aid placement or in non-supported form as a resin film.

* Lloyds Register approved

ACG, supplier of choice for the marine industry, offers products with a history spanning multiple America's Cup and Volvo Ocean Race victories.

Why Choose ACG?

ACG is a world-class composite solutions provider that works closely with its network of partners to provide integrated services to its customers. Through its expertise, technology, products and flexibility, ACG offers unparalleled benefits to its users.

ACG is the front-runner prepreg manufacturer of choice for marine applications. ACG:

- manufactures a complete range of prepreps, from phenolics, epoxies, cyanate esters,
- bismaleimide and vinylester resins.
- has full prepreg processing capability in Europe and the USA, and can supply unidirectional (UD) and fully and differentially coated fabric prepreps using all types of fibres (carbon, glass, etc.).
- offers a comprehensive range of fire retardant composite materials suitable for the marine industry.
- is flexible to customers' requests for specific product formats and weights.
- manufactures a wide range of film adhesives.
- can process small (50 to 500m²) or large batch quantities of customer specific products.
- offers a world-wide support service with sales representatives and technical assistance.

Products Stocked

ACG regularly manufactures the following materials and maintains a level of stock which ensures that products are readily available to short lead times:

Material Description	Reinforcement Type
MTM57/CF0302-42%RW	High Strength Carbon 199g/m ² 2x2 Twill 3K
MTM57-2/CF6400-40%RW	High Strength Carbon 400g/m ² Biaxial
VTM264/CF0300-42%RW	High Strength Carbon 199g/m ² 2x2 Twill 3K
VTM264/CF6400-40%RW	High Strength Carbon 400g/m ² Biaxial
MTM57/T700S*(24K)-300-35%RW	High Strength Carbon Unidirectional 300g/m ²
MTM57/M40J(12K)-300-32%RW	High Modulus Carbon Unidirectional 300g/m ²
VTM264/T700S*(24K)-300-35%RW	High Strength Carbon Unidirectional 300g/m ²
VTA260/PK13-263g/m ²	Supported Adhesive Film
* = or equivalent fibre type	

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