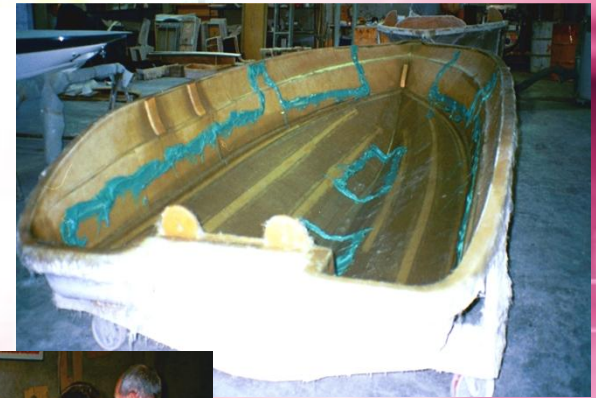


Reflex Products Ltd.

Hull + Liner

Plexus MA 425



Palm Beach Yachts

Hull + Deck

Plexus MA 556



Broom Boats

Swim platform

Plexus MA 550



## Formula Boats

## Hull + Stringer

## Plexus MA 590

Application Case History:  
FORMULA BOATS by THUNDERBIRD PRODUCTS



### STRUCTURAL BONDING OF STRINGERS IN HIGH-PERFORMANCE BOATS

Traditional construction methods for high-performance boats use plywood eggcrate and heavy glass epoxy laminate within the hull structure to provide the power, rigidity, security, and ride qualities needed for extreme speed over the water.



Thunderbird Products of Decatur, IN, builders of **Formula Boats**, has come up with a labor-saving alternative to this type of plywood construction. Several **Formula** models now use a glass fiber/epoxy structural grid which is bonded to the inside of the hull using Plexus "Fiberglass Fusion" Adhesives.

Pat Laux, Product Development Manager for Thunderbird, claims the grid within the **FAS<sup>2</sup>Tech** multiplane hull increases hull bottom strength by 20% and side strength by 10%, with no additional weight or labor.

Thunderbird chose Plexus Adhesives because their advanced methacrylate technology eliminates the surface preparation and priming required with a urethane-based adhesive.

"We did considerable testing of the glued-in-place grid to verify the strong impact resistance, long-term fatigue resistance, and water resistance properties of the Plexus Adhesive," Laux says. "Our testing more than proved the new design. The Plexus-bonded composite grid is a substantially stronger joint and, in conjunction with **Formula's** new "stepped" hull design, results in a boat that goes 4-7 mph faster and rides with less pitch and more stability than a boat with conventional deep-V hull construction."



Plexus Adhesives:



- Absorb impact stresses
- Reduce wave-induced torsional forces
- Produce a substantially stronger boat

ITW Plexus, manufacturer of Plexus Adhesives, has over 30 years of experience in the design, development, and production of epoxy and methacrylate bonding agents. The company's products are widely used in the marine, automotive, aerospace, transportation, construction, and manufacturing industries.

30 Endicott Street • Danvers, MA 01923 • TEL: 800-851-6692 • FAX: 978-777-7904 • www.itwplexus.com

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ITW Plexus

Formula Boats

Hull + Stringer

Plexus MA 590





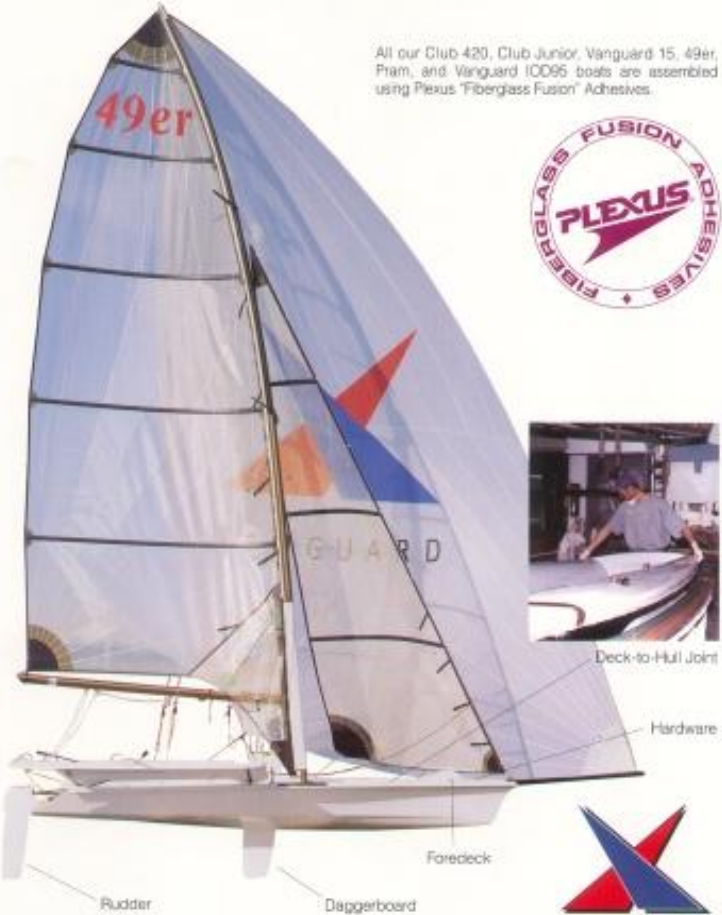
## Vanguard Sailboats

### Hull + Deck

### Plexus MA 425

Vanguard Builds Its Sailboats with **PLEXUS** "Fiberglass Fusion" Adhesives

All our Club 420, Club Junior, Vanguard 15, 49er, Pram, and Vanguard 10095 boats are assembled using Plexus "Fiberglass Fusion" Adhesives.



Rudder

Daggerboard

Foredeck

Hardware

Deck-to-Hull Joint

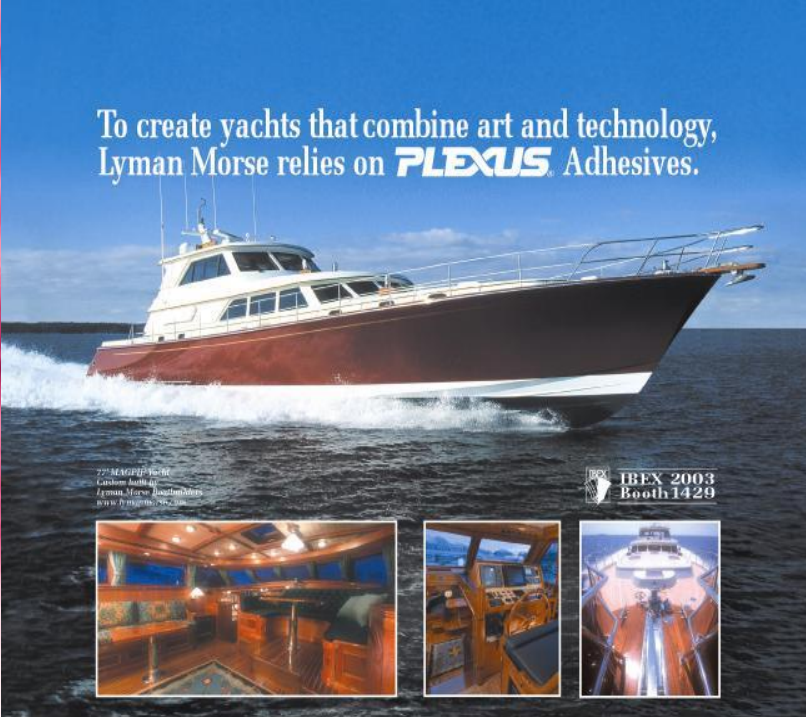
VANGUARD

## Lyman Morse Yachts

## Hull + Deck


## Plexus MA 557

To create yachts that combine art and technology, Lyman Morse relies on **PLEXUS** Adhesives.



77' MAQPIE Yacht  
Custom built by  
Lyman Morse Boatworks  
www.lymanmorse.com

IBEX 2003  
Booth 1429



### Exceptional Looks, Exceptional Credentials

Typical of the superior quality yachts Lyman Morse builds, the 77 Maqpie combines the latest advanced technology and engineering with the exquisite styling and joinery of a classic wooden motor yacht. Plexus Fiberglass Fusion Adhesives were used extensively in the construction of this stunning engineering marvel.

### Long Open Time Adhesives for Large Assemblies

Certain Plexus Adhesives have open times as long as 90 minutes and are ideal for large assembly bonding such as deck-to-hull and superstructures. With exceptional stackability and sag/swim resistance, they stay where you put them. And their ability to bond plastics, composites, metals, and dissimilar substrates — with little or no surface preparation — allows their use in a wide range of applications from composite I-beam flooring systems to furniture and panel installations.

### Stronger Bonds, Better Performance

Plexus Adhesives chemically fuse composites at a molecular level, forming bonds stronger than the substrates themselves. The result is stronger, lighter, faster boats with fewer repairs.



ITW Plexus/Pacific Rim  
TEL: 65-6-408-9433  
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**PLEXUS**  
Experts in Composites Bonding