

# CaseHistory

## Low-Hap Resins for Marine

**Resins:** Hydropel® H034-A skin coat  
Altek® H834-R low-profile  
laminating

**Composite  
Applications:** Powerboats

**Lengths:** 18 to 37 feet  
(5.5 to 11.3 meters)



For 40 years, Chaparral Boats has been making award-winning powerboats by maintaining a tradition of never-ending quality and high consistency. Faced with new federal emissions requirements for boat manufacturing, Chaparral managers know how to change their process without changing their traditionally high standards. They turned to new low-HAP resins and technical support from their long-standing resins supplier, AOC.

Chaparral makes 18- to 37-foot (5.5- to 11.3-meter) boats in open molds using low-pressure resin flowcoaters. The new U.S. Environmental Protection Agency rule requires boatbuilders to lower emissions of HAPs (hazardous air pollutants) by using (MACT) Maximum Achievable Control Technologies standards. Chaparral's compliance strategy included using AOC resins made with lower amounts of styrene, an EPA-classified hazardous air pollutant (HAP).

“AOC moved us rapidly to a MACT-compliant resin status without issue,” says Buck Pegg, vice-president of Chaparral. “I have had personal experience with AOC products for over thirty years. Their low-HAP resins are just as consistent and reliable as their traditional products.”

### MACT-Compliant Resins

Chaparral uses Hydropel® H034-A MACT-compliant vinyl ester from AOC as a skin coat to provide

resistance to osmotic blistering. Buck points out there have been no resin hull blister issues since moving to Hydropel H034. Because of Hydropel H034's high strength and toughness, the skin coat resin also strengthens the overall laminate's resistance to cracking.

Behind the skin coat, Chaparral applies a laminate of fiberglass in Altek® H834-R MACT-Compliant low profile resin. Even with reduced styrene levels, the resin is engineered to provide fast and complete fiber wet-out. Altek H834-R resin combines a fast cure rate, reduced post-cure and a high heat deflection temperature to deliver higher production rates with a superior surface profile.

According to Buck, there is more to AOC value than the consistency and performance of Hydropel and Altek resins. “AOC sales, customer service and technical support are always responsive and very helpful,” he adds. “The sales rep knows his products, has been around for years and always provides me with honest and helpful answers when I have questions.”

