

California Testing Spotlights Copper Alternatives

With the rising cost of copper and increasing concern over the environmental impact of copper-based bottom paints, much attention is being given to the development of effective, copper-free antifouling alternatives.

Already this year, several paint manufacturers have launched new low-copper or copper-free products, and more are on the horizon. New technologies are being explored, and consumers are likely to see the fruits of this labor this fall and winter.

In Southern California, where bottom paints were identified as a major source of copper pollution in some harbors, legislation—including limits on the copper in antifoulants—has been developed to reduce the copper levels in those waters. In an effort to find suitable, effective alternatives to copper-based bottom paints—and thereby reduce copper pollution in the Shelter Island Yacht Basin—the Unified Port of San Diego has launched a two-year test of dozens of copper-free paints.

The project, funded through the U.S. Environmental Protection Agency (EPA), follows a test protocol very similar to ours, combining blind panel testing and real-world boat tests. Forty-six copper-free paints are being tested. They are divided into three categories: zinc coatings (18 products), non-zinc organic biocide coatings (four), and non-biocide coatings (24). Two copper paints, chosen because they are commonly used in the area, have been included for comparison: Interlux's Super KL, a high-copper, hard

paint, and Sea Hawk's AF-33, a low-copper ablative.

A number of the San Diego test paints—and a few in the 2008 *PS* test lineup—use Ecomea, a relatively new organic biocide touted as more environmentally friendly than metal-based antifoulants. More expensive than copper, Ecomea is used alone and in conjunction with zinc-based formulas to keep hulls fouling-free.

Pettit, Blue Water, Epaint, and Interlux are among the paint makers exploring Ecomea as a viable alternative to copper and other metal-based paints. According to Pettit, the company will launch two new Ecomea-based formulas next year: the copper-free Vivid ECO and the water-based Hydrocoat ECO, which is among the San Diego and *PS* test paints. This year, Blue Water plans to release its first copper-free line of products, Blue Water Shelter Island and Drivesleek (an aerosol), which will be zinc-omadine based.

Historically, *PS*'s test have found that water-based and copper-free paints do not offer as prolonged protection as their more potent copper counterparts. However, we're anxious to see how the new Ecomea products and paints using new composite technologies fare in San Diego and in our own evaluations.

Results of the San Diego panel tests are expected to be released later this fall. Top performers will be applied to area boats next year. The project is set to be completed in 2010.

For more info on the Port of San Diego project, visit www.portofsandiego.org/environment/alternative-hull-paints.html.