

Job Story:

PROBLEM:

Finding a durable, moisture resistant alternative to sprayed polyurethane insulation, suitable for sailing in all climates.

SOLUTION:

AP Armaflex provides superior condensation control, ease of installation, and much, much more.

Project:
Insulating Hull of Custom Designed
Lavranos 43' Sailboat

Location:
British Columbia, Canada

Builder/Contractor:
Dearden Marine



Pleasure Sailing with AP Armaflex® in the Hull

David Content, a retired attorney, had never heard about Armaflex closed-cell insulation, but like most avid sailors he had heard of Steve Dashew.

Dashew, a world renowned authority on sailboats and author of many books on sailing, had used Armaflex to insulate the hull of his own boat, the "Beowulf," primarily because his wife was allergic to mold and he needed a highly mold-resistant insulating material. In the process of installing Armaflex on the Beowulf, Dashew discovered that Armaflex, typically used in HVAC/plumbing applications, offered much more than mold resistance. From excellent acoustic properties to low VOCs, Dashew gave Armaflex high ratings as an effective alternative to sprayed polyurethane (PU) foam in an article he wrote for SetSail.com, which David Content happened to read. About to embark on the design and construction of his own sailboat, "The Barefoot", Content decided to give Armaflex a try.



Choosing Armaflex over Sprayed Polyurethane

While simple to apply, sprayed polyurethane foam insulation has its disadvantages when applied to a boat hull. It requires considerable clean-up and is difficult to remove should any additional welding or metal repair be required. The foam can also break down and begin to absorb moisture, causing mold and mildew, and the loss of its insulating properties.

Armaflex, on the other hand, is extremely durable and resistant to moisture infiltration. The closed-cell structure prevents any moisture from wicking through to the metal hull. It is also fiber-free and dust-free so there is less food for mold spores to feast upon.

In Dashew's article, Content read about several other advantages to using Armaflex on a boat, including:

Ease of installation. Armaflex can be ordered in self-adhesive sheets or rolls that can be



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quickly and easily cut to size to fit perfectly inside the hull frames. Armaflex also permits the incremental installation of the material, as opposed to sprayed polyurethane which is an “all-at-once” endeavor. This phased installation permits concurrent welding, which cannot be accomplished when sprayed polyurethane is used, as it will cause smoke and potentially fire.



Safety. Armaflex is formaldehyde free, has low VOCs, and can be installed without the use of any contact cement if the self-adhesive product is used.

Easy removal should any part of the hull surfaces require inspection.

Durability. Armaflex will not break down over time.

Excellent acoustic properties, as the material deadens sound transmission through the metal hull. According to Steve Dashew, Armaflex can even be used throughout the boat on furniture and surfaces to keep interior noise and vibration to a minimum.

Effective thermal insulation for sailing in high latitudes and in the tropics.

Installation Reveals Other Benefits

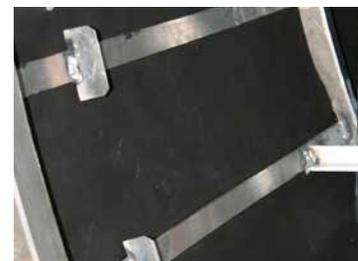
Content chose 1" Armaflex SA (self-adhesive) for the hull and overhead of the 43' Lavranos cutter-style sailboat, which was custom built by Dearden Marine in British Columbia, Canada. He chose 1/4" Armaflex SA to wrap the frames.

By all accounts, installation went extremely well—so well that John Dearden of Dearden Marine suggested Armaflex to another custom boat client before the Barefoot was even complete.

“It is really nice to be able to weld and insulate one section at a time,” said Dearden, explaining that with a custom boat, it is very difficult to complete all of your welding at one time. *“With sprayed insulation, you can’t do any welding after you’ve insulated because of the fire hazard.”*

“There’s also a lot of clean-up with sprayed foam. You usually spray too much, and it doesn’t leave a good surface, so it tends to break into pieces while you’re working. You’ve basically got a mess the whole time you’re working with it. On the other hand, Armaflex leaves a smooth, durable surface that won’t break apart, even with excessive contact. It’s so durable, that a boat owner could even opt to leave it uncovered if he or she wants to save money.”

Dearden Marine also discovered another unexpected benefit of Armaflex: The elimination of waste. They found they could easily piece excess cut-offs together for use in corners and odd-shaped areas.



Setting Sail with Armaflex On-Board

The Barefoot is now in shipshape for serious sailing. From the Sub-Antarctic island of South Georgia to the South Pacific, David Content has big plans for his new sailboat. Having already sailed more the 50,000 ocean miles, including passages to Easter Island, the Galapagos Islands, Australia, New Zealand, Pitcairn Island, Chile and Tahiti, Content knew exactly what he wanted and needed from this boat. Superb insulation and durability were at the top of the list. Thorough research led him to a product that held surprising extras that will provide smooth sailing in multiple latitudes for years to come.

ARMACELL LLC

TEL: 1 800 866-5638

FAX: 919 304-3847

E-MAIL: info.us@armacell.com

INTERNET: www.armacell.us



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