## **INSULATION FOR HULL AND CABIN**

For a truly comfortable boat in both extremely hot and cold climates, it is important to insulate the hull and inside the bulwarks to prevent condensation in cold weather, and keep the boat cooler in hot weather. When the heat from the cabin gets up into the cold bulwark, the moisture condenses into water droplets and runs down the inside of the hull.

The bulwarks can be insulated using pink fiberglass insulation that is available at any building supply store. It is usually 4" thick, and can be cut into 4" wide strips, then stuffed up into the bulwarks to insulate them. It is easily removed if it is necessary to reach inside the bulwarks at a later date.

For insulation of the hull sides, and inside all of the lockers, we used a closed cell polyethylene insulation, 1/4" thick, skinned on both sides. It came in rolls that are 4' wide, and can be cut with a scissors or razor blade. It glues in place with a special contact type adhesive. The insulation goes by the trade name of Volan 5A or Ethafoam. The adhesive is made by 3M, and is their product number 4693. At the hull to deck joint it should be cut so that it comes up the hull side and continues onto the underside of the deck, so as to block off the bulwark and insulate the side decks. The insulation forms a smooth, clean and soft surface inside all of the lockers, instead of rough fiberglass. The skinned surface prevents crumbling of the insulation inside the lockers.

Ethafoam can be purchased from Bob's Foam Factory, 4055 Pestana Place, Fremont, CA 94538 Phone 510-657-2420 . www.bobsfoam.com

The cabin top and under the foredeck usually already have foam backed vinyl insulation, or wood slats, installed over 3/8" plywood furring strips. If you are replacing the headliner, put the insulation between the furring strips, then install the headliner material.

The hull sides above the berths usually have wood slats installed over plywood furring strips bonded to the hull. Remove the slats and slip pieces of the insulation between the furring strips, then reinstall the wood slats.