

Ice box insulation for liner version boats

by Mike Lehman

Whether you plan to add refrigeration, or just want your ice to last longer, you will need to provide better insulation for your ice box. So this is one way to do it. To the right is the existing ice box that you will take apart.



Start by removing the fiddles around the counter top. Use care not to damage these pieces since they will be used again after they have been sanded and refinished.

The next step is to remove the counter top. You will find that it is overlapped by some of the trim (right) in the boat which will need to be removed before the countertop can be removed.



Now carefully slide out the counter top. You may find this a good time to replace those 40+ year-old counter tops, so save these to be used as patterns for the new tops.

Using a tape measure, you will discover that there is only about 1" between the outside and the inside of the box. The foam used was light-weight Styrofoam and provided R-Zero insulation. The bottom of the box has virtually no insulation.





Using a sabre saw carefully cut out the top of the box on the line of the inside of the box and remove the top.

Once the top is removed, you have full access to the interior of the ice box. The volume computed at 5.3 cu. ft. Once insulated, the volume will be reduced to approx. 4 cu. ft. This reduction is roughly equivalent to 2 blocks of ice that is no longer needed due to the increase in insulation.



Using 1" R-Max foil-lined foam which can be purchased at Home Depot, start cutting panels to fit the sides and bottom of the ice box. NOTE: you will need poster board to make a template for each panel of foam, since there are no right angles. Add two layers of foam, staggering the joints for a tight fit, and creating R-12 insulation. After all of the panels are fitted, remove each and label the order in which they are installed. Tape the edges with foil tape. Reinstall the panels using ONLY FDA approved "Food Safe" caulk/sealant .



After the foam is installed and all of the seams are caulked and sealed (NOTE: Air gaps are your enemy), it is time to install FRP panels to protect the foam. FRP can be purchased at Home Depot. Just like the foam panels, make templates from poster board to get a tight fit on the FRP panels. Caulk all of the seams then seal all of the seams with 3" fiberglass tape and epoxy. Once cured, paint the tape with Rustoleum appliance spray epoxy paint.



Reinstall the icebox top, countertop and all of the refinished trim and you are done. Note: New countertops installed on Gilleleje.

Parts List:

4x8 sheet of R-Max 1" R-6 foam (Home Depot)
1 roll foil duct tape
4x8 sheet of FRP (Home Depot)
6 Tubes AST-RTV 27110 Food Grade White 100% Silicone Adhesive/Sealant (Amazon.com)
20 feet - 3" fiberglass tape
1 can Rustoleum Appliance epoxy paint white
West System epoxy

Summary: It took several weeks to complete this project, which included installing a refrigeration unit. We were very pleased with the performance of this 'new' ice box on a recent 1-month cruise in May. Everything stayed cold and fresh and we made minimal stops for ice, mainly to be used for drinks. It is a nice enhancement to the Alberg 30.