

RANCANG BANGUN KOTAK COOLBOX PENDINGIN IKAN UNTUK KAPAL NELAYAN

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Abstract

Fish is one kind of sea creatures that are so popular to become dishes. Fish are usually traded in a fresh state, it requires some steps to pack the fishes to keep it fresh. One of the steps can be performed by using coolbox. The process of maintaining the temperature is not separated from the insulation system located on the Cool Box. At this time the majority of Indonesian fishermen relatively still use a Cool Box made of Styrofoam. In this study the cooling box is made of corn cobs as the material for the insulation. The best composition based in the result is 60:40 where the thermal conductivity value is 0,7830 W/mK and the density is 0,22 g/cm³. This experiments has done by using 2 kg of ice and 400 gr of fish. The experimental results show the minimum temperature reached by the coolbox of 2.2°C, then for the point of T2 (in the fish body) reached the lowest temperature at -0.7°C, and for the point of T3 (coolbox space) reached the lowest temperature at 18, 1°C. This shows the cool box using insulation of corn cob capable of preserving fish for 5-10 hours.

Keyword : Insulation Technology, Coolbox, Conductivity of Termal.