ABSTRACT

Kenaf fiber is a natural fiber which is often used as reinforcement in composites with polymer as the kenaf matrix. Composite materials are formed from a combination of two or more materials that have different mechanical properties through inhomogeneous mixing. This study aims to determine the mechanical properties of the epoxy resin kenaf fiber composite and 2cm random fiber arrangement. Variations in the composition of fiber and epoxy resin in the study with the addition of a composition of 10/90, 20/80, 30/70 wt%, using *635 epoxy resin* versus 4: 1 with *hardener and* in this study using variations in time and temperature. In this study, using two tests, namely, impact test and bending test. From the research results, the highest flexural strength is found in specimens with a temperature of 150 ℃ within 60m at a composition of 70% resin and 30% kenaf fiber. Meanwhile, in the impact test there are also better mechanical properties. The highest impact strength was found in specimens with a composition of 70% epoxy resin and 30% kenaf fiber, at temperatures of 150°C within 60 m. While the lowest mechanical properties impactfound at a temperature of 90°test wasC within 45 m with a composition of 20/80 wt%, in the flexural test the lowest mechanical properties were found at a composition of 20/80 wt%, within 60 m and a temperature of 30°C .

Keywords: Mechanical properties, kenaf fiber composites with epoxy resin.