

ABSTRACT

Composite is material that has been used in several sector because of easily used and fabricated. Fabrication of composite can be applied in several components such as turbine gas, rocket engine, dan electronic packaging. Composite can be made from natural fiber such as sisal fiber, coconut fiber and etc. Natural fiber has advantages such as price is cheaper, easy gotten, light weight and eco-friendly. This study uses corn husk as reinforcement and epoxy as matrix. Parameters used in this study are volume fraction and fiber length. Volume fraction consist of several percentage those are 20, 30, 40 dan 50%, while fiber length has 2 level those are 165 and 80 mm. This research aimed to investigate the influence of corn husk volume fraction and fiber length toward tensile strength and fracture visual. Composite making uses method of Vacuum Assisted Resin Injection (VARI). *Tensile test and fracture analysis were conducted to investigate mechanical property of corn husk. Result show that volume fraction and fiber length has influence toward tensile strength. The highest value of tensile test equal to 31,24 N/mm² obtained by combination of 80 mm of fiber length and 50% of volume fraction. Generally, fracture visual consists of fiber pull out and debonding.*

Keywords: *Composite, Corn husk, VARI*