

**“ANALISA SIFAT MEKANIS KOMPOSIT *HYBRID* SERAT ALAM RAMI  
DAN *FIBERGLASS* DENGAN MATERIAL PENGISI *POLYURETHANE*  
*FOAM* PADA PEMBUATAN PESAWAT TERBANG MODEL  
*UNMANNED AERIAL VEHICLE (UAV) SUPER HEAVY*”**

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**ABSTRAK**

*The purpose of the research are to analyze tension and strain that obtained at tensile testing while the energy obtained is known from impact test where that data will to applied to the Unmanned Aerial Vaechile airplane with hybrid fiber composite materials and 200 gram woven roving fiberglass and polyurethane foam as filler. The research method using hand lay-up in the manufacture of standardized test specimens process agree with ASTM-D638. The results obtained in tensile and impact testing is refer to positive results when maximum tensile strength is 12,7% or equal to 6300 Mpa and the energy absorbed on the impact test is 169,485 Joule and density in a model UAV airplane type is 0,5 kg/m<sup>3</sup>, on that test is showed strength and load from composite alloy to be a new penetration in airplane industry, especially airplane model.*

**Keywords** : *Mechanical, Hybrid, Hand-lay up, UAV (Unmanned Aerial Vaechile)*