

Pengaruh Formalin terhadap Kekuatan Tarik Serat Daun Agel sebagai Penguat Komposit

Abstract— The objective of the research is to know effect of chemical treatment formalin on its tensile strenght of agel fiber. Research method is conducted by cutting agel leaves which have old enough and the strength from jetty co that length 60 cm up to 100 cm, then continued with leaf flaking to tka fiber. Fiber from agel leaves are cut to pieces as long as 17 cm as according to specimen test to be used. Fiber from agel leaves is treated with soaking in formalin with concentration 5% up to 37% during 3 hours , then measured the strength, athwart diameter and density. Upon which the similar examination comparator also conducted at fiber glass but without soaking in formalin. Result of the research showed that Strength of agel fiber can reach 354 MPa, Chemical treatment of formalin had no significant effect on its strength, and Agel fiber can used as strengthening of composite material.

Keywords: fiber of agel leaves, strength, composite, chemical treatment of formalin

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