

Investigation and characterization of insect secretion on Albazia tree as biobased material alternative for matrix composite

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ABSTRACT

The people of Ciamis regency, West Java district, Indonesia have been using biobased material to patch the tin roof, to join rod of machete and rod of hoe. They call it with the term "ant's house ". This paper reports the investigation and characterization of the material as an alternative material for biobased composite matrix. Investigations were carried out in the traditional market Ciganjeng, Padaheurang, and Banjarsari subdistrict, Ciamis regency, West Java District, to obtain samples of the biobased material and collect information related to the main sources location. The sample was characterized by FTIR to predict functional group and SEM-EDAX to count mass of its chemical structure. Polarity and visualization of samples were done to prove the chemical structure prediction of the material. The results of the investigation and characterization showed that the sample is lac secretion of insect that live on Albazia tree, so it is not the "ant's house". The main source location of the material is mountain area of Karangnangka village, Banjarsari subdistrict, Ciamis regency of West Java district. The chemical structure of the biobased materials is aleuritic acid. The next paper will report engineering aspect of matrix composite from this biobased material alternative.

Keywords : Biobased material alternative, aleuritic acid, matrix composite.