FABRICATION AND CHARACTERIZATION OF JACKFRUIT SEED POWDER AND POLYVINYL ALCOHOL BLEND AS BIODEGRADABLE PLASTIC

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ABSTRACT

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The biodegradable plastics was fabricated from jackfruit seed powder starch and polyvinyl alcohol (PVA) blend in order to develop an environment friendly material that can replace the petro-chemical plastics that widely use nowadays. In order to ensure the bioplastic is reliable enough, several testing was conducted which to identify the mechanical properties and biodegradability. Mechanical properties of the bioplastic was analyzed by the tensile testing which shown that the increase in amount of jackfruit seed powder starch will causing the tensile strength of the sample to decrease. Meanwhile for biodegradability of the bioplastics was determined by Fourier Transform Infrared Spectroscopy shows that the samples from week 0 to week 8 would have any changes in term of structural modification. Thus it is proved that, the sample with high amount of jackfruit seed powder starch have better biodegradability characteristics.

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