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Development of Adhesive from Prosopis african Seed Endosperm (OKPEYI)

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Abstract : An experimental study was carried out to develop an adhesive from Prosopis africana seed endosperm. The Prosopis seeds for this work were obtained from Enugu State in the South East part of Nigeria. The Prosopis seeds were prepared by separating the Prosopis endosperm from the seed coat and cotyledon. The dry adhesive gotten from the endosperm was later dissolved to get the adhesive solution. Confirmatory tests like viscosity, density, pH, and binding strength were carried out. The effect of time, temperature, concentration on the yield and properties of the adhesive were investigated. The results obtained showed that increase in concentration, time, temperature decreases the viscosity of the Prosopis adhesive and yield of Prosopis endosperm. It was also deduced that increase in viscosity increases the binding strength of the Prosopis adhesive. The percentage of the adhesive yield from Prosopis endosperm showed that the commercialization of the seed in Nigeria will be possible and profitable.

Keywords : adhesive, Prosopis, viscosity, endosperm
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