Développement d'un Biomatériau à Base de Polymère etRenfort Végétale

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Abstract: In the last few years, there has been a strong interest in the development of biodegradablepolymers as an alternative for many applications. This is in order to reduce the largeconsumption of plastic causing environmental problems.In this study we develop low cost and low density biodegradable composite materials thatcan be recycled and help to combat the pollution problems of the 21st century. The workdone in this thesis is oriented along this axis and aims to develop mixtures based on polyvinylchloride and fiber Atriplex halimus whose loading rates vary from 1% to 10%. The varioustechniques of characterization were carried out on the developed mixtures. The physicalproperties such as absorption, as well as mechanical, hardness, tensile test, showed animprovement of the content and resistance of our material reinforced by the vegetable fiber.These observations lead us to conclude that such a material can be used on an industrialscale for packaging applications

Keywords : composite materials, Polyvinyl chloride, Atriplex halimus, Vegetable fiber