**Mechanical Properties of Gracilaria Lichenoides Reinforced Bioplastic Film**

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INTERNATIONAL CONFERENCE ON ADVANCES IN MANUFACTURING AND MATERIALS ENGINEERING (ICAMME 2017)
Book Group Author(s): IOP
Book Series: IOP Conference Series-Materials Science and Engineering
Volume: 290
Article Number: UNSP 012061
DOI: 10.1088/1757-899X/290/1/012061
Published: 2018
Document Type: Proceedings Paper

Conference
Conference: International Conference on Advances in Manufacturing and Materials Engineering (ICAMME)
Location: Int Islam Univ, Kuala Lumpur, MALAYSIA
Date: AUG 08-09, 2017

Abstract
In this study, the mechanical properties of gracilaria lichenoides with additional of plasticizer and filler were evaluated. For samples with the addition of 5.5% of plasticizer, produced low tensile strength and this results is vice versa with elongation at break results. The tensile strength of the bioplastic continuously decreases from 14.8 to 2.7MPa as the plasticizer increases up from 1.5% to 5.5%. This phenomenon was analyses under scanning electron microscope (SEM), it shows that, the formation of pores and crystal agglomeration at sample with 5.5% glycerin. To alter these flaws, squid bone is introduce as filler to the bioplastic. Based on the analysis, additional of 6% filler content did alter the tensile strength up to 8 MPa with 3% of the elongation at break.

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Funding

<table>
<thead>
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<th>Grant Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Initiative Grant Scheme</td>
<td>RIGS 16-176-0340</td>
</tr>
<tr>
<td>Universiti Teknologi MARA (UITM)</td>
<td></td>
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</tbody>
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