



**“Gheorghe Asachi” Technical University of Iasi, Romania**



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## **A STUDY ON THE MECHANICAL PROPERTIES OF SOME GREEN-COMPOSITES**

**Ion Ciucă<sup>1</sup>, Marius Marinel Stănescu<sup>2\*</sup>, Dumitru Bolcu<sup>3</sup>**

<sup>1</sup>*Department of Materials Science and Engineering, Polytechnica University of Bucharest,  
313 Splaiul Independentei, 060032, Bucharest, Romania*

<sup>2</sup>*Department of Applied Mathematics, University of Craiova, 13 A.I. Cuza, 200396, Craiova, Romania*

<sup>3</sup>*Department of Mechanics, University of Craiova, 165 Calea București, 200620, Craiova, Romania*

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### **Abstract**

In this paper, we determined some mechanical properties of a new category of green composites, based on tensile tests. More precisely, we selected a set of samples from a new bio-resin based on Dammar and two sets of samples from green-composites with matrix by bio-resin and reinforced with almost compact layers of *Typha latifolia* or *Schoenoplectus lacustris*. For these built materials, we obtained the characteristic curve, tensile strength, percentage elongation after fracture and elasticity modulus. In addition, for each sample, we observed the breakage area with an electronic microscope. The roughness profile parameters for a bio-resin specimen were determined. Based on the EDS analysis we obtained the chemical structure of the bio-resin. Finally, based on the properties of these green-composites, we proposed a few applications in civil engineering and medical fields.

*Key words:* chemical structure, green composites, mechanical properties, roughness

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\* Author to whom all correspondence should be addressed: e-mail: [mamas1967@gmail.com](mailto:mamas1967@gmail.com); Phone: +40740355079