

Accepted Manuscript

Title: Effect of cellulose structure and morphology on the properties of poly(butylene succinate-co-butylene adipate) biocomposites

Author: R. Avolio V. Graziano Y.D.F. Pereira M. Cocca G. Gentile M.E. Errico V. Ambrogi M. Avella



PII: S0144-8617(15)00619-0
DOI: <http://dx.doi.org/doi:10.1016/j.carbpol.2015.06.101>
Reference: CARP 10092

To appear in:

Received date: 18-3-2015
Revised date: 25-6-2015
Accepted date: 27-6-2015

Please cite this article as: Avolio, R., Graziano, V., Pereira, Y. D. F., Cocca, M., Gentile, G., Errico, M. E., Ambrogi, V., and Avella, M., Effect of cellulose structure and morphology on the properties of poly(butylene succinate-co-butylene adipate) biocomposites, *Carbohydrate Polymers* (2015), <http://dx.doi.org/10.1016/j.carbpol.2015.06.101>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Effect of cellulose structure and morphology on the properties of poly(butylene succinate-co-butylene adipate) biocomposites

R. Avolio *, V. Graziano **, Y. D. F. Pereira ***, M. Cocca *, G. Gentile *,
M. E. Errico *, V. Ambrogi **, M. Avella *

*Institute for Polymers, Composites and Biomaterials - National Research Council
Via Campi Flegrei 34 - 80078 Pozzuoli (NA) – Italy. **Department of Chemical, Materials and
Production Engineering, University of Naples, Piazzale Tecchio 80, 80125 Napoli, Italy. ***
Department of Materials Engineering, Faculty of Technology, University of Amazonas, Av.
General Rodrigo Octávio Jordão Ramos, 6200, Coroado I, 69077-000 Manaus, Brasil

HIGHLIGHTS

- New PBSA/cellulose composites were prepared and characterized
- A new compatibilizing agent was synthesized and tested
- Amorphized cellulose (AC) was used as filler in comparison to crystalline cellulose
- Using AC, break elongation of composites was preserved also at high filler contents
- AC accelerated the soil burial degradation kinetic of PBSA

Download English Version:

<https://daneshyari.com/en/article/7787656>

Download Persian Version:

<https://daneshyari.com/article/7787656>

[Daneshyari.com](https://daneshyari.com)