Accepted Manuscript

Design and manufacture of degradable polymers: Biocomposites of micro-lamellar talc and polylactic acid (PLA)

MATERIALS
CHEMISTRY AND
PHYSICS

INCLUDING
COMMUNICATIONS
COMUNICATIONS
COMMUNICATIONS
COMMUNICATIONS
COMMUNICATIONS
COMMUNICA

M. Barletta, E. Pizzi, M. Puopolo, S. Vesco

PII: S0254-0584(17)30320-6

DOI: 10.1016/j.matchemphys.2017.04.036

Reference: MAC 19638

To appear in: Materials Chemistry and Physics

Received Date: 27 December 2016

Revised Date: 18 April 2017

Accepted Date: 20 April 2017

Please cite this article as: M. Barletta, E. Pizzi, M. Puopolo, S. Vesco, Design and manufacture of degradable polymers: Biocomposites of micro-lamellar talc and polylactic acid (PLA), *Materials Chemistry and Physics* (2017), doi: 10.1016/j.matchemphys.2017.04.036

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.

ACCEPTED MANUSCRIPT

Highlights

- High performant bio-composite of Poly Lactic Acid (PLA) reinforced with micro-lamellar talc;
- Talc modified by surface reaction with organic and hybrid organic-inorganic compatibilizers;
- Custom-built formulations by the dispersion of the pre-treated micro-lamellar talc in PLA;
- Differential Scanning Calorimetry (DSC) and Attenuated Total Reflection Fourier Transform Infrared Spectrophotometry (ATR FT-IR);
- Chemical and physical interaction among the functional groups of pre-treated talc and PLA chains.

Download English Version:

https://daneshyari.com/en/article/5448126

Download Persian Version:

https://daneshyari.com/article/5448126

<u>Daneshyari.com</u>