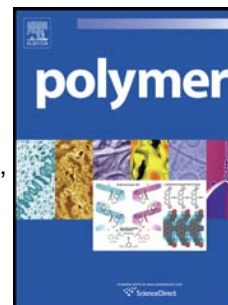


Accepted Manuscript

Effect of electrospun ethylene vinyl alcohol copolymer (EVOH) fibres on the structure, morphology, and properties of poly(lactic acid) (PLA)

Ramesh Neppalli, Valerio Causin, Antonio Marigo, Martina Meincken, Patrice Hartmann, Albert J. van Reenen



PII: S0032-3861(13)00829-X

DOI: [10.1016/j.polymer.2013.08.046](https://doi.org/10.1016/j.polymer.2013.08.046)

Reference: JPOL 16448

To appear in: *Polymer*

Received Date: 9 April 2013

Revised Date: 28 June 2013

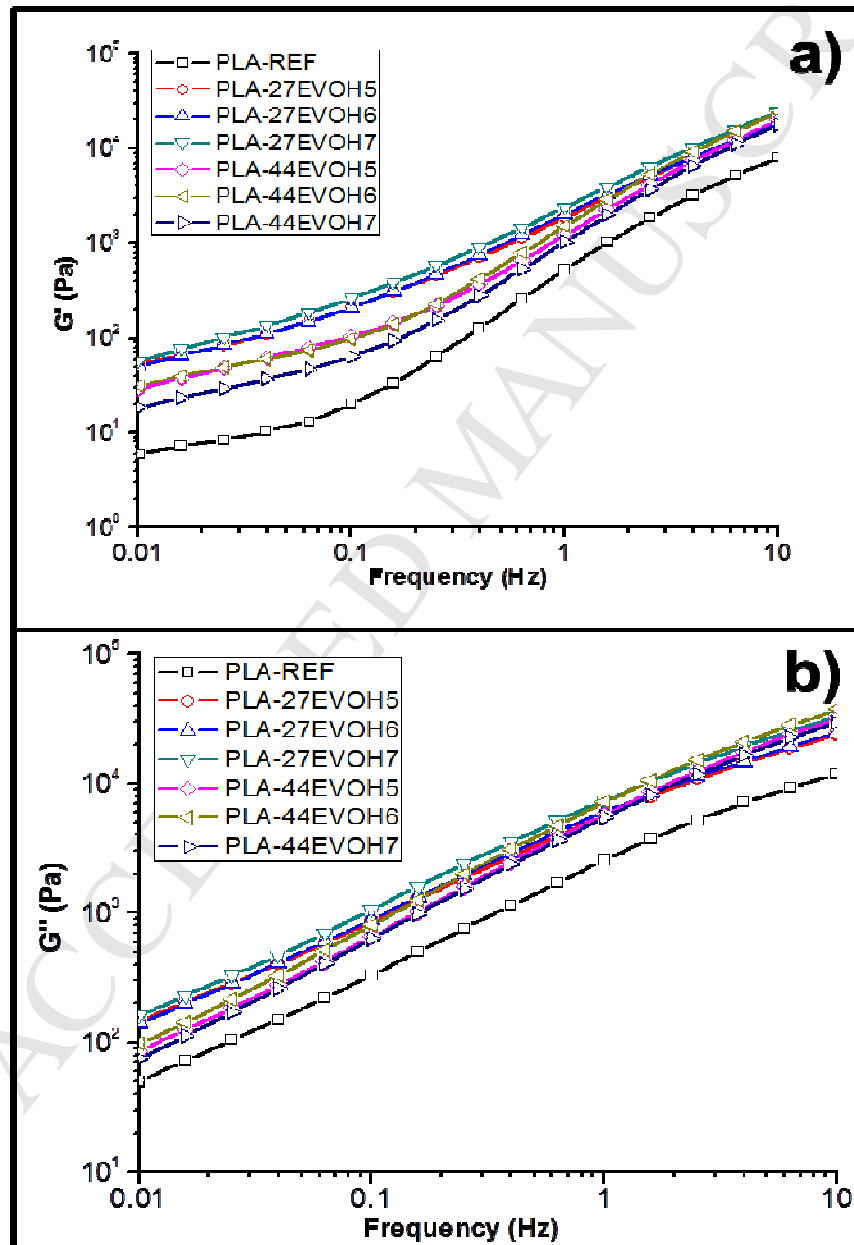
Accepted Date: 17 August 2013

Please cite this article as: Neppalli R, Causin V, Marigo A, Meincken M, Hartmann P, van Reenen AJ, Effect of electrospun ethylene vinyl alcohol copolymer (EVOH) fibres on the structure, morphology, and properties of poly(lactic acid) (PLA), *Polymer* (2013), doi: 10.1016/j.polymer.2013.08.046.

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.

Graphical abstract

Bio compatible poly(ethylene vinyl alcohol) (EVOH) copolymer varying by ethylene content (27 and 44%) was used for electrospinning. The presence of EVOH fibres in the poly(lactic acid) (PLA) matrix allowed the material to increase its storage modulus while decreasing its crystallinity, hence enhancing the toughness of the PLA. The possibility to engineer the chemical nature and fibre morphologies allows designing higher resistance materials to impact with high rigidity and with the tunability of biodegradation.



Download English Version:

<https://daneshyari.com/en/article/5181923>

Download Persian Version:

<https://daneshyari.com/article/5181923>

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