

Accepted Manuscript

Synthesis of NR based Polyurethanes containing phosphorylated polymers as chain extenders

Krishna V. Baratha, Arnaud Nourry, Jean-François Pilard

PII: S0014-3057(15)00378-X

DOI: <http://dx.doi.org/10.1016/j.eurpolymj.2015.07.030>

Reference: EPJ 6996

To appear in: *European Polymer Journal*

Received Date: 28 April 2015

Revised Date: 2 July 2015

Accepted Date: 16 July 2015

Please cite this article as: Baratha, K.V., Nourry, A., Pilard, J-F., Synthesis of NR based Polyurethanes containing phosphorylated polymers as chain extenders, *European Polymer Journal* (2015), doi: <http://dx.doi.org/10.1016/j.eurpolymj.2015.07.030>

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.



Synthesis of NR based Polyurethanes containing phosphorylated polymers as chain extenders

Krishna V. Baratha^{a,b}, Arnaud Nourry^a, Jean-François Pilard^{a}*

a) LUNAM Université, Institut des Molécules et des Matériaux du Mans (IMMM), Equipe Méthodologie et Synthèse des Polymères, UMR CNRS 6283, Université du Maine, Avenue Olivier Messiaen, 72085 Le Mans, Cedex 9, France

b) Malaysian Rubber Board, Bgn Getah Asli, 148 Jalan Ampang, 50450 Kuala Lumpur, Malaysia

Corresponding author: Pr Jean-François Pilard.

E-mail : Jean-Francois.Pilard@univ-lemans.fr

Tel: +33243833540

Fax: +33243833754

ABSTRACT

Natural Rubber (NR) based Polyurethanes (PU) with phosphorylated polymers as chain extenders were studied. Two types of polymer were investigated: poly-phosphonate and poly-phosphate synthesized using a RAFT methodology. Two molecular weights (5000 and 3000 g.mol⁻¹) were targeted with dispersity close to 1.1. The PU films were prepared from a liquid Hydroxyl Telechelic Natural Rubber (HTNR) which was obtained through a controlled degradation. The mass percentage of the chain extenders added in the PU film was varied from 1 to 8%. The films

Download English Version:

<https://daneshyari.com/en/article/7805028>

Download Persian Version:

<https://daneshyari.com/article/7805028>

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