

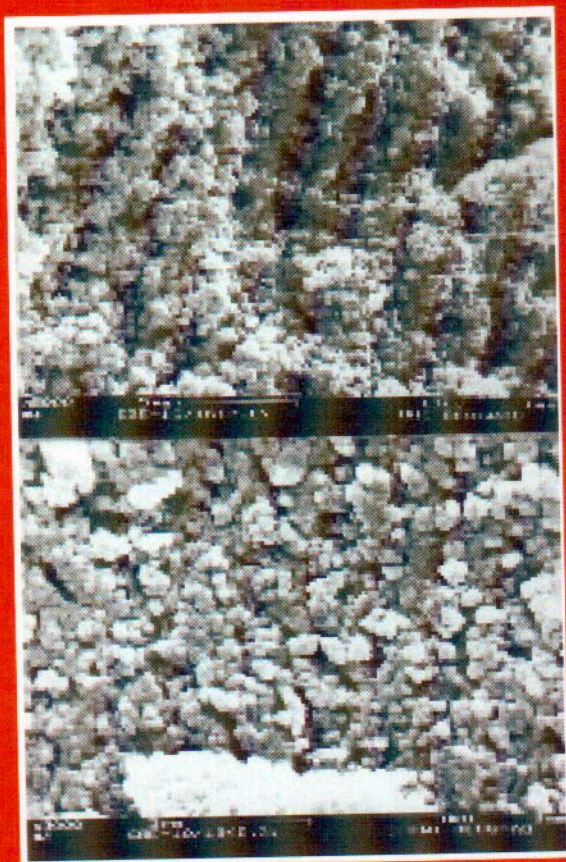
POLYMERIC MATERIALS

EDITOR

Aleksandra B. Nastasović

CONSULTANT EDITOR

Slobodan M. Jovanović



TRANSWORLD RESEARCH NETWORK



Polymeric Materials

2009

Published by Transworld Research Network

2009; Rights Reserved

Transworld Research Network

T.C. 37/661(2), Fort P.O.,

Trivandrum-695 023, Kerala, India

Editor

Aleksandra B. Nastasović

Consultant Editor

Slobodan M. Jovanović

Managing Editor

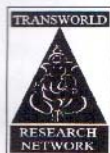
S.G. Pandalai

Publication Manager

A. Gayathri

Transworld Research Network and the Editor
assume no responsibility for the opinions and
statements advanced by contributors

ISBN: 978-81-7895-398-4



Polymeric Materials, 2009: 29-48 ISBN: 978-81-7895-398-4
Editor: Aleksandra B. Nastasović

2

Thermoplastic elastomers based on poly(butylene terephthalate) and various siloxane prepolymers

Vesna V. Antić¹, Marija V. Vučković¹, Milica R. Balaban¹
Milutin N. Govedarica¹ and Jasna Djonlagic²

¹Polymer Department, Center of Chemistry, Institute of Chemistry
Technology and Metallurgy, Studentski trg 12-16, 11000 Belgrade, Serbia

²Faculty of Technology and Metallurgy, Karnegijeva 4, 11000 Belgrade, Serbia

Abstract

Thermoplastic poly(ester-siloxane)s (TPES) and poly(ester-ether-siloxane)s (TPEES), based on poly(butylene terephthalate) (PBT) as the hard segment and different siloxane-containing prepolymers as the soft segments were synthesized by catalyzed two-step transesterification/polycondensation reaction. Incorporation of disilanol- or dicarboxypropyl-terminated poly(dimethylsiloxane)s (PDMS-OH and PDMS-CP) into the polar poly(butylene terephthalate)