Polyurethanes Based on Anionic Macroinitiators, Aromatic Isocyanates, and 4,4'-Dihydroxy-2,2-diphenylpropane

I. M. Davletbaeva[a], I. I. Zaripov[a], R. S. Davletbaev[b], and F. B. Balabanova[a]

[a] *Kazan National Research Technological University, ul. Karla Marksa 68, Kazan, Tatarstan, 420015 Russia*
[b] *Kazan National Research Technical University, ul. Karla Marksa 10, Kazan, Tatarstan, 420111 Russia*
e-mail: davletbaeva09@mail.ru

Received February 25, 2014

Abstract—Polyurethanes prepared from anionic initiators, 4,4'-dihydroxy-2,2-diphenylpropane, and aromatic isocyanates were studied by IR spectroscopy. The hydroxy groups in 4,4'-dihydroxy-2,2-diphenylpropane are completely involved in the urethane formation. Variation of the molar ratio of isocyanate and hydroxy groups in the polymer-forming system allows control both of the rigid segment length and of the content of the isocyanurate component in the polymeric matrix. The physicomechanical properties of the polymeric film samples were studied. An increase in the size of the aromatic block is accompanied by enhancement of the strength and plastic deformation of the polymers.

DOI: 10.1134/S10704272140400120