**1. Haerterei-Technische Mitteilungen**

Volume 37, Issue 8, August 1987, Pages 417-421

Dynamic Mechanical Properties of Grafted Copolymers Cellulose-Polymethyl Methacrylate. (Article)

[DYNAMICKO-MECHANICKE VLASTNOSTI OCKOVANYCH KOPOLYMEROV CELULOZA-POLYMETYLMETAKRYLAT.]

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**Abstract**

Dynamic mechanical properties of cellulose modified with grafted methyl methacrylate were studied. Low-temperature plasma, potassium peroxosulphate, or ammonium vanadate were used for the activation of cellulose. Dynamic mechanical properties were evaluated from the measured spectrum of the loss factor tg delta as a function of temperature between 0 and 200 degree C. Both the position and height of the maximum in the spectrum of cellulose near 45 degree C are affected by activation by means of low-temperature plasma and by grafting. The changes indicate an increased intensity of intermolecular interaction. The grafting markedly affects the high-temperature maximum which splits into several peaks and shifts towards lower temperatures.

Indexed keywords

Engineering controlled terms: CELLULOSEPOLYMETHYL METHACRYLATE - Grafting

Engineering uncontrolled terms: INTERMOLECULAR INTERACTIONSPMMA

Engineering main heading: COPOLYMERS

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