

The properties of nitrocellulose lacquers as objects of technological reprocessing

© **Dilyara R. Ibneeva**,⁺ **Tatiana A. Eneykina**,* **Evgenia S. Abramovskaya**, **Anatoly P. Pavlov**,
Rose F. Gatina, and **Yury M. Mikhaylov**

“State Research Institute of Chemical Products” Federal State Enterprise. Svetlaya St., 1. Kazan, 420033.

Tatarstan Republic. Russia. Phone: +7 (843) 560-20-12, +7 (843) 564-60-03. E-mail: gniihp@bancorp.ru

*Supervising author; ⁺Corresponding author

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Abstract

The conditions of reprocessing (dispersion) of the solutions of cellulose nitrates in ethyl acetate containing dispersed fillers (octogen, aluminium) based on aqueous-dispersing technology were investigated. The dynamic variation of the rheological characteristics (dynamic viscosity, fluidity, specific intensity of mixing) of the lacquer during time at 20 and 60 °C, especially in the first 60 minutes of conditioning, and its influence on the reprocessing of the mass were established. Increasing of viscosity of the lacquer during time leads to the necessity of increasing of the intensity of mixing, additional application of effective surface-active substances (SAS) except of standard emulsifying agents and stabilization of the time of lacquer formation. It is advisable to introduce PVN (polyvinylnitrate) into nitrocellulose lacquer (10-15 % mass.) for facilitation of dispersion of the lacquer.