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## Effect of Aging Process on Elongation at Break and Morphology of Natural Rubber Latex Film Filled With Nanocrystalline Cellulose and Alkanolamide

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**Abstract:** Sugarcane bagasse is industrial waste with high content of cellulose which can be reused as organic filler in natural rubber latex film. Nanocrystalline cellulose was obtained by acid hydrolysis process from sugarcane bagasse. Alkanolamide is anionic surfactant which derived from RBDPS (Refined Bleached Deodorized Palm Stearin) and used as compatibilizer on natural rubber latex film to improve interaction between natural rubber latex and nanocrystalline cellulose. Research on aging effect of natural rubber latex film filled nanocrystalline cellulose and alkanolamide had been done. Aging process was done at temperature 70 °C for 24 hours. The result of elongation at break and morphological scanning of natural rubber latex film showed that natural rubber latex film filled nanocrystalline cellulose and alkanolamide have good resistance on aging process.

**Keywords:** Aging, Alkanolamide, Elongation at Break, Nanocrystalline Cellulose, Natural Rubber Latex.

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