

**EFFECT OF DILUTION LEVEL AND LEACHING  
TEMPERATURE ON THE PROTEIN CONTENT IN  
NATURAL RUBBER GLOVES**

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Addition

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## ABSTRACT

Natural rubber latex is an invaluable raw material in the present world, but the synthetic rubber products have come in to the arena of rubber product designing and it compete with natural rubber latex products. The major problem associate with natural rubber latex products is the ' type I allergy' caused by the proteins leached by the sweat or other body fluids. The reason is proteins present in natural rubber latex. The main aim of this study was to introduce two alternative methods to tackle the protein allergy in natural rubber products. Acid treatments, potassium hydroxide treatments and addition of water soluble polymers like strategies have already been introduced to reduce extractable proteins in natural rubber products. In this study two different experiments were conducted. First treatment was dilution of natural rubber latex with two different dilution levels as dry rubber content of 30% and 25% in field latex and prepares films for protein testing before centrifuging, after centrifuging and after manufacturing of gloves. Second treatment was treated the gloves with different leaching temperature levels as 50°C, 60°C, 70°C, 80°C, 90 °C and protein testing. Results showed that the extractable protein content of the films reduced with increasing dilution and increasing leaching temperature. Dilution treatment and leaching treatments were found effective in reducing extractable protein content in natural rubber latex films.