

Impact of Leaching Tank Water on Final Quality of the Glove

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Abstract

The purpose of this research was to analyze the impact of leaching tank water on final quality of the glove at Workwear Lanka (Pvt.) Ltd. The leaching process is the main step in the glove manufacturing process. Excess chemicals were removed using leaching tank. This study has been completed with an empirical primary data which was conducted thoroughly using a data collecting method. 25 leaching water sample were selected. Also for presenting and analyzing the data, both descriptive and regression analysis were used. Based on the results of discussion certain vital findings were made. According to the analyzed data, optimum glove calcium level is 0.044 gl⁻¹ in plant 01 and plant 03 optimum glove calcium level is 0.028 gl⁻¹. Optimum pH level is 4.068 in plant 01 leaching tank water and optimum pH level is 5.10 in plant 03 leaching tank water. Optimum TDS level is 467.56 ppm in plant 01 leaching tank water and optimum TDS level is 444.04 ppm in plant 03 leaching tank water. Optimum calcium level is 0.1626 gl⁻¹ in plant 01 leaching tank water and optimum calcium level is 0.1228 gl⁻¹ in plant 03 leaching tank water. Above this optimum level, quality of the gloves was affected. Therefore, above this level leaching water should be removed and refilled the leaching tank.

Keywords: Leaching tank, optimum calcium level, optimum TDS level, optimum pH level, leaching tank water