

**EFFECT OF BEVALOID SOLUTION ON WEB
HOLE FORMATION IN NATURAL RUBBER
DISPOSABLE GLOVES**

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ABSTARCT

Latex dipping industry takes an important place among the rubber industries in Sri Lanka. In dipping industries, centrifuged natural rubber latex is mainly used. There are number of dipped products produced using natural rubber (NR) latex. Among them gloves takes a significant percentage. Web holes are the holes appear in between finger area of the examination gloves. They are one of major defects found in natural rubber latex gloves. Bevaloid solution is an anti-webbing agent which added to minimize the production loss occurred due to webbing holes.

Bevaloid solution amount that should be incorporated to the glove compound to minimize web holes was analyzed in the study. A NR disposable glove production process was selected and gloves were prepared using the currently using Bevaloid solution amount. The gloves were selected hourly to check web holes using water testing method. Also, thickness & length of final glove products were measured. A series of four compounds were prepared changing the Bevaloid dosage level while other parameters are constant. Same procedure was repeated to check web holes. The Bevaloid solution amount that provided the minimum web holes percentage was determined. The effect of increasing Bevaloid amount on length and the thickness of the final glove product was observed.

Web holes percentage was decreased when the Bevaloid solution amount was increased. But increment amount of Bevaloid solution did not affect to the thickness and length of the glove.

Finally, 18g of Bevaloid level was selected as the most suitable level to minimize web holes percentage of natural rubber disposable glove. Because it showed lowest web hole percentage without any defects. All the Bevaloid levels did not show any significant effect on the thickness and length of the glove.

Key words: Bevaloid solution, Natural rubber (NR), Web holes,