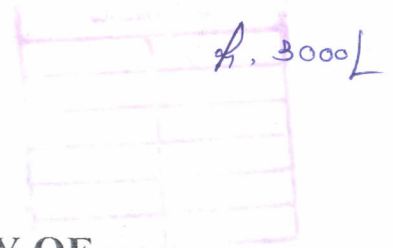


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**FACTORS AFFECTING THE QUALITY OF
CENTRIFUGED LATEX AND IT'S PROCESSING
BEHAVIOUR IN THE LATEX PRODUCT
MANUFACTURING INDUSTRY**

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Abstract

Centrifuged latex manufacturing industry is one of the most economically important and rapidly growing industry in Sri Lanka. Centrifuged latex being a semi finished natural product it undergoes lot of chemical changes during storage. The consumer is more concerned in getting quality latex to suit his manufacturing process. The main quality parameters that should be controlled very carefully are the VFA number and MST of the latex concentrate.

Four types of concentrated latex were used to study of variation of characteristics of latex during storage. In LVFA latex, VFA number increases relatively a faster rate during the first 3 weeks and thereafter the rate of increase is gradually reduced to almost zero. The VFA number increases in HVFA latex at a relatively slower rate during the first 30 days and thereafter starts to rise very sharply.

Increase of MST with maturity time could be approximately divided in to three stages. In stage I, 0-14 days, MST increases very slowly. In stage II, 14-21 days it increases very rapidly. In Stage III, after approximately one-month storage MST remains unchanged or it starts to decrease very slowly. This general pattern of MST variation is consistent with the pattern of hydrolysis of phospholipids and glycolipids associated with RP. Results also indicate that HA preserved latex is consistent latex with properties when compared with LA preserved latex.

Blending of superior quality centrifuged latex with inferior quality latex was also investigated. Results indicate that HVFA latex can be blended with LVFA latex even in 1:1 ratio and can be stored for a period of two weeks without any appreciable increase in VFA.

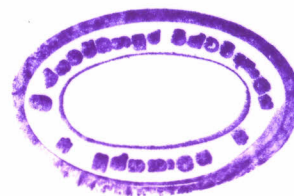
Precipitation of magnesium by the natural process occurs at a faster rate within the first 6 hrs, and thereafter the rate of precipitation slows down. About 60% of magnesium from the initial level are precipitated within 24 hrs of storage. Only 60% of magnesium are precipitated by the incorporation of stoichiometric quantities of DAHP even for prolonged storage.

By centrifugation VFA number is reduced by 75% and the magnesium level by 40-50%.

Investigation of quality of centrifuged latex on the properties of the prevulcanized latex indicates that HA preserved latex shows higher tear strength when compare with LA preserved latex and relatively new latex with high MST shows higher tear strength than HMST old latex.

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