

PREPARATION OF QUALITY SHEETS FROM AMMONIA PRESERVED FIELD LATEX

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Ribbed Smoked Sheets (RSS) are generally made from fresh latex and graded by visual grading as per the "Green book" specifications. As sheets in India are mostly made in the small growers sector the uniformity in quality of sheets is a concern. Good grading can be achieved by adopting recommended processing practices through group processing centres (GPCs). To ensure a regular supply of latex to the GPCs it is necessary to store latex and prepare sheets from preserved field latex (PFL). Present study is an attempt to develop a method to prepare sheets from stored latex without compromising the quality. Both low ammonia latex and high ammonia latex were pre-treated before adding the preservative and stored for various periods. The lattices were coagulated at regular intervals and the raw rubber properties were measured. The study revealed that the PRI values can be retained as a satisfactory level by pretreating the latex before adding preservatives. This method can be used for making sheets from stored latex without adversely affecting the rubber properties.

Key words: Natural rubber latex, Plasticity retention index, Ribbed smoked sheets, Stored latex

INTRODUCTION

Natural rubber is generally collected from the rubber tree *Hevea brasiliensis* in the form of latex harvested through tapping the tree. Latex produced in the tree is sterile and when it comes out it is acted up on by micro organisms and spoils the latex (Twiss *et al.*, 1941). Therefore the latex as soon as it is collected has to be converted into suitable marketable forms like sheet rubber, block rubber, crepe rubber, centrifuged latex, creamed latex or preserved field latex (Zuhainis *et al.*, 2015). The first three are dry forms of rubber whereas the other three are liquid forms. Majority of the products like tyres, rubber mats, conveyer belts, bushes *etc.*

are made from dry rubber whereas rubber products like gloves, condoms, foams, balloons *etc.* are made from liquid forms (Alex *et al.*, 2011). Around 70 per cent of the rubber is used in the tyre sector where natural rubber (NR) used is mainly sheets and block rubber (Morshed *et al.*, 2018). In this context it is important to make sheets out of latex.

Rubber sheets are generally made from fresh latex and graded as ribbed smoked sheets (RSS) by visual grading as per Green book specifications (Biffen, 1898). This is the simplest form of processing latex and do not require any sophisticated and expensive machinery and can be done by the tapper.