

**PERFORMANCE ANALYSIS OF RIBBED SMOKE  
SHEET MADE WITH DIFFERENT SKIM LATEX AND  
NR LATEX BLENDS**

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by  
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## ABSTRACT

Skim latex is byproduct of centrifuge latex manufacturing process. It was recently noted that there is a potential of adulteration of field latex with skim latex and the blend can be used for manufacturing conventional type RSS. This adulteration without proper ratios has led to unexpected processing problems and performance failures of the rubber products. Therefore, finding out a suitable blending ratio/s of skim and NR latex, which can maintain the quality of RSS as expected by both the industry and market is needed. Hence, the performances of ribbed smoke sheet (RSS) made with different skim latex and NR latex blends were analyzed preparing different ratios of skim and NR latex with the volume Ratios of 0/100-(SNR00), 20/80-(SNR20), 40/60-(SNR40), 60/40-(SNR60), 80/20-(SNR80) and 100/0-(SNR 100). Each blend was processed into RSS by following standard manufacturing procedure. The effect of blend ratio on raw rubber properties *viz*, ash content, mooney viscosity, PRI, density, volatile matter content, acetone extraction, nitrogen content, metal ion( $\text{Cu}^{2+}$ ) and plasticity. Further, curing properties and physio-mechanical properties were evaluated and compared with conventional RSS. The results showed that ash content, mooney viscosity, nitrogen content, volatile matter content, acetone extraction, plasticity were not significantly different in SNR20 and SNR40 blends from the control (SNR 00). The results of cure characteristic and physio-mechanical properties show that the SNR 20 and SNR 40 were also not significantly different from the control. Finally, it can be concluded that, SNR 20 adulterated with skim latex 20% and SNR 40 blend adulterated with skim latex 40% would produce better performing RSS.

Keywords: Blend, Curing properties, Mechanical properties, Raw rubber properties, RSS