


DEPOLYMERISATION OF NR LATEX AND ITS APPLICATIONS

by

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2.4	Determination of molecular weight by solution viscosity measurements	32
2.5	Determination of Hydrogen peroxide strength by Iodometric method	35
2.6	Determination of sodium hypochlorite strength by Iodometric method	37
2.7	Investigated properties	38
CHAPTER THREE - Depolymerisation of NR latex		39
3.1	Influence of latex preservative on depolymerisation	42
3.2	Influence of pH on depolymerisation	43
3.3	Influence of chemical dosage on depolymerisation	44
CHAPTER FOUR - The investigations of the suitability of depolymerised latex in pressure sensitive adhesive		49
4.1	Tackyfing resin to improve tack	49
4.1.1	Preparation of esterified rosin	49
4.1.2	Determination of acid value	50
4.1.3	Preparation of resin dispersion	52
4.2	Preparation of adhesive and determination of peel strength	53



4.2.1	Preparation of adhesive films	53
4.2.2	Testing	54
4.3	Results	54
CHAPTER FIVE - Discussion		64
5.1	Suggestions for further work	68
REFERENCES		69
APPENDIX		



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(iii)

ABSTRACT

The controlled molecular weight reduction of NR in latex phase had been carried out by treating NR latex with singlet molecular oxygen generated from inexpensive and nontoxic reagents 'Hydrogen peroxide and sodium hypochlorite'.

The extent of degradation was studied by viscosity measurements. The extent to which viscosity is reduced can be controlled to a large extent by the amount of reagents used and the pH of the latex. In acidic medium extent of degradation was higher. The mechanism of scission is investigated. The results obtained are more (24) in favour with the mode of scission proposed by Hock.

Potential applications of the process can be grouped in to three general areas corresponding to low, intermediate and high level of treatment. Low level of treatment give rubber of reduced viscosity within the normal range for bulk rubber.

Intermediate levels give soft, sticky rubbers pale in colour and showing good pressure sensitive tack and peel strength even without the use of tackyfing resins. High levels of treatment give very viscous liquid rubber.