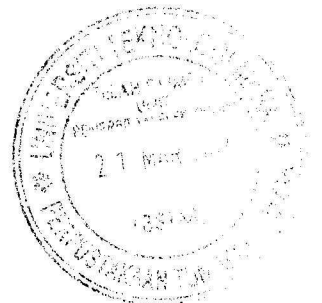


WASTE POLYESTER YARN- LATEX LAMINATE

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ABSTRACT

WASTE POLYESTER YARN- LATEX LAMINATE

Compounded latex was used as a binder to the waste polyester yarn composite. In the production of yarn- latex laminate, latex compound and waste polyester yarns were bounded together to make a laminate sample composite. The yarns were arranged by the different percentage with parallel and opposite directions for each moulding. The laminate sample was good in physical properties when the percentage of yarns increased. More research work was required to evaluate the properties of the laminate sample to enhance the reinforcement property.

CHAPTER 1

INTRODUCTION

1.1 Background

Natural rubber latex is obtained from a tree, *Hevea Brasiliensis*. It is a milky serum which is a product of cutting the bark of the tree. This natural milk is essentially composed of stable polymer dispersion in the aqueous media. Polyester yarn on the other hand is a synthetic material which a man-made material. Yarns are used in many coated articles because of its good properties. Lamination by definition is combining two materials and this very act in modification of physical properties based on the individual characteristics of the separate components. If one component has limited stretch only in the warp and other limited stretch in both warp and weft. Lamination of any fabric invariably produces a laminate which is stiffer than either of the two starting materials although this can be minimized by choice of the most suitable lamination method and adhesive [5]. In this study, waste polyester yarn will be laminated with latex in different weight ratios of yarn. Incorporation of polyester yarn as a filler is expected to enhance the mechanical properties of the composite. Several mechanical tests shall be conducted which includes puncture, tearing and tensile strength test to ascertain the properties of the composites obtained.