

CHAPTER I

INTRODUCTION



Background

Neoprene adhesive, manufactured from a synthetic rubber called "Poly chloroprene", is a general purpose adhesive. The rapid development of bond strength of film from solution, combined with back or auto - adhesion, as well as resistance of the cured glue line to heat, oxidation, water, solvents, oils, acids and alkalines, have led to the extensive use of Neoprene adhesives in the automotive, furniture, footwear, leather and construction industries.

Presently, Neoprene adhesives have been used in the wide range of applications. Many of them are locally manufactured in house by improper method that can easily cause the fire holzard. The qualities are out of control and the manufacturers do not understand thoroughly for the manufacturing regarding the functions of the raw materials. Some industrial users have to import the Neoprene adhesives due to the quality problems of the local products

Objective

This thesis is to study the feasibility of establishing a Neoprene adhesives factory and to describe the manufacturing process of Neoprene adhesives in Thailand.

Scope

The working on this study are as follows

1. Summarizing and analyzing the market potential, and users and tendency in the future so as to be the data for evaluating the plant size, location and layout.
2. Studying on types, sources and costs of process equipments.
3. Studying on specifications, sources and costs of raw materials.
4. Studying on the manufacturing process, quality control and safe handling of adhesives.
5. Studying on the apparatus for product development.
6. Estimating the total investment, operating cost, cost of goods, profit, return on investment and financial evaluation.

It is important to note that this thesis is to provide the guidance of feasibility the Neoprene adhesives plant operation in Thailand. Market demand and potential was considered only Neoprene adhesives, no automatic machines are involved in the process equipment. For the manufacturing process, it is mentioned generally on the conventional procedure being developed in some other countries and convenient for the situation in Thailand. The functions of raw materials are defined to the major

compositions in a typical Neoprene adhesive. Special additives and fillers are not included because the additional experiment is to be carried out for individual adhesive in particular application. Accordingly, the apparatus for product development is recommended.

Benefits

It is expected that this thesis can be the guidance of the investors who are interested in the manufacturing of Neoprene adhesives in Thailand. The profit estimated provides a good rate of return on investment. The present adhesive manufacturers are able to utilize some of the information such as the method of product development in their existing manufacturing. It is very feasible for the consumers to switch the using of imported Neoprene adhesives to locally manufactured products if we can fulfil their requirement on the reliability on qualities of adhesives.