CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

This project title is simulation study of the plastic floor tile for two plate and three plate mold using plastic simulation software and focused on getting the best result to produce the plastic floor tile between the two plate and the three plate mold using plastic simulation software such as Moldflow software. The design will be in hexagonal shape, with the interlocking features for the attaching purpose. For having the most optimize mold design, the plastic simulation software will be use to determine and analyze, whether the two plate or the three plate mold is most suitable to produce the plastic floor tile. Therefore, the Moldflow analyzing ability is useful to determine the manufacturing feasibility of the design.

1.2 OBJECTIVES

1. To get the best result to produce the plastic floor tile between two plate and three plate mold using plastic simulation software.
2. To analyze the result using Moldflow software.
3. To choose between the two plate and three plate mold as the mold to produce the product, which is the plastic floor tile
1.3 PROJECT SCOPE

One of the most important parts in a project is the project scopes. In this order to get the best results, the scopes are:

1. Analyze between the two most common type of cold runner mold, the two plate and the three plate mold
2. Using the Moldflow Plastic Adviser (MPA) as the main software to analyze and get the best results.
3. Comparison between the two plate mold and the three plate mold, and choosing the mold with the results according to the parameters, material effects and cooling system effects.

1.4 PROBLEM STATEMENT

The trends of producing a plastic product in injection molding industries are recently changing from traditional method to using FEA analysis. The used of simulation software run concurrently with designing and fabrication become more popular and applicable. For example, to produce a plastic floor tile with the right mold type to optimize the production and also the profit from the products, there are many aspects to be considered.

- For injection molding industries, time and cost is very important aspects to consider because these two aspects will directly related to the profits of a company.
- The normal selection process for the type of mold needed to use usually take time and increase cost, thus will be a lost if the wrong type of mold is selected to inject a product
• Using Moldflow software with the ability to analyze, test and even perform detailed part cost estimation can help the users to choose the most suitable mold type according to their capabilities, thus can save time and cost of selecting a mold to used to fabricate a product.