

摘 要

近几年来模具行业发展飞速，全国的模具的总销售额已经达到了近两千亿元，国家也极其重视这个行业，未来前途一片光明。塑料模具是我们国家模具行业的一个分支，也是最重要的组成部分之一。本电吹风壳体设计采用注塑成型，注塑成型适用于规模化生产和形状复杂产品等成型加工领域。

根据自己的模拟试验，对电吹风机壳进行了分析和再设计，设计了一个一模两腔的电吹风壳体模具，之后对整个模具进行了加工条件的选择和尺寸工艺设计，考虑了电吹风壳体的塑性特点、所需塑件的结构和使用时的要求。先找到适合加工的分型面，确定各部件尺寸和完成各个系统设计等。之后利用 Pro/Engineer 软件完成吹风机壳体的注射模具设计。最后，利用 Pro/Engineer 软件对塑料制品进行了模拟分析。

关键词：注射成型；电吹风壳体设计；三维设计

Abstract

In recent years, the mold industry has developed rapidly. The total sales volume of mold in China has reached nearly 200 billion yuan. The country attaches great importance to this industry and has a bright future. Plastic mold is a branch of mold industry in our country, and also one of the most important components. The design adopts injection molding, which is suitable for large-scale production and complex shape products.

According to the first mock exam, the electric hair dryer shell is analyzed and redesigned. A mold with two cavity and a mold is designed. The processing conditions and the dimension process design of the whole mold are processed. The plastic characteristics of the shell, the structure of the required plastic parts and the requirements for use are taken into account. First, find the suitable parting surface, determine the size of each component and complete the design of each system. Then, the injection mold design of the blower shell is completed by using Pro/Engineer. Finally, the simulation analysis of plastic products is carried out by using Pro/Engineer.

Key words: injection molding; hair dryer shell design; 3Ddesign

目 录

摘 要

Abstract

第一章 绪论

1.1 课题的背景和意义·····	1
1.2 常见的塑料成型模具·····	1
1.2.1 塑料注射成型模具·····	2
1.3 课题研究方案·····	2

第二章 塑料注射成型工艺

2.1 塑料制品的结构和工艺性能设计·····	3
2.1.1 塑件材料分析·····	3
2.1.2 ABS 性能相关参数·····	3
2.1.3 物料性能·····	3
2.1.4 制品的结构工艺性·····	4
2.2 注塑成型工艺过程·····	5
2.3 注塑成型设备·····	6
2.3.1 注塑机结构组成·····	6
2.3.2 注塑机工作过程·····	6
2.4 ABS 注射成型工艺参数·····	8

第三章 电吹风壳体注射模设计

3.1 注射模具分类·····	10
3.2 电吹风壳体模具的结构设计 ·····	10
3.2.1 分型面位置的确定·····	10
3.2.2.型腔数量的确定·····	11
3.2.3 浇注系统设计·····	12
3.2.4 各部分成型零件设计·····	14
3.2.5 合模导向机构设计·····	17
3.2.6 推出机构设计·····	19
3.2.7 模具温度调节系统设计·····	20
3.2.8 标准模架的选用·····	22

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