
电脑风扇叶片注塑模具设计

摘要：毕业设计是对学生几年来所学成果的一种检验，本次设计的题目是电脑风扇叶片注塑模具设计，通过UG建模绘制塑件的三维图形进行分析，结合设计要求和实际生产确定模具的结构形式。首先分析塑件的分型面，在选择塑件的分型面时要保证便于脱模，塑件的分型面一般选择最大平面，保证塑件外观光滑，减少痕迹。塑件的材料选用要根据塑件在实际生活中的应用，所选择的材料要满足塑件在使用过程中的要求。然后是对出模数量的确定，出模数量要根据模具设计原则来进行确定，参考实际生产中的要求采用一模二腔。型腔布局时多采用整齐排列的方式进行排列布局，这样的结构更加的简单，实际生产中多数使用的就是这样的布局方式，更加的稳定可靠。浇口的设计也是本次设计当中的重点，浇口位置的选择非常的重要，在设计时浇口的位置要尽量的靠近塑件的中心，保证充填的均匀，在遇到塑件过长过大的时候，就需要考虑增设浇口的数量。成型零件一般选用718H作为材料，它又被叫做模具钢，钢度强度等性能都能够满足注塑的要求。型芯型腔采用潜入式的结构形式，便于更换维修，降低制造成本。塑件的顶出形式根据塑件的结构特点选择合适的顶出方式。

在对模具的设计完成后，最后进行注塑机的选择与确定，结合设计完成后的参数与注塑机进行计算校核。

关键词：分型面、成型零件、UG、校核、模具设计；

Design of injection mold for computer fan blade

Abstract: Graduation design is a test of the students' achievements in the past few years. The title of this design is the design of the injection mold for the cooling fan blades. The three-dimensional figures of the plastic parts are drawn through UG modeling for analysis, and the structural form of the mold is determined based on the design requirements and actual production. Firstly, the parting surface of the plastic part is analyzed. When choosing the parting surface of the plastic part, it is necessary to ensure that it is easy to demould. Generally, the parting surface of the plastic part selects the largest plane to ensure that the appearance of the plastic part is smooth and reduce traces. The material selection of plastic parts shall be based on the application of plastic parts in real life, and the selected materials shall meet the requirements of plastic parts in the use process. The first mock exam is to determine the quantity of the die, and the quantity of the die should be determined according to the design principle of the mould. A two cavity is adopted for reference in the actual production. The cavity layout is usually arranged in an orderly way, which makes the structure more simple. In actual production, most of them use this layout, which is more stable and reliable. The design of gate is also the key point of this design. The selection of gate position is very important. In the design, the position of gate should be close to the center of plastic parts as far as possible to ensure the even filling. When the plastic parts are too long and too large, the number of additional gates should be considered. Generally, 718H is used as the material of molding parts, which is also called die steel. The properties of steel strength can meet the requirements of injection molding. The core cavity adopts a submerged structure, which is convenient for replacement and maintenance and reduces the manufacturing cost. According to the structural characteristics of the plastic parts, the appropriate ejection form is selected.

After the completion of the mold design, the final selection and determination of the injection molding machine, combined with the parameters after the completion of the design and the injection molding machine for calculation and verification.

Keywords: parting surface, forming parts, UG, check, mold design;

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