
摘 要

本文通过查找大量的文献对聚丙烯的优缺点、结构和性质、生产来源、应用领域以及国内外聚丙烯改性的方法和工艺进行了概括。

聚丙烯作为一种特别的塑料在汽车行业、家电、包装工业、建筑材料等领域都有广泛的应用。但是由于聚丙烯本身不够坚韧，在温度较低时比较脆等缺点，限制了其进一步的使用。玻璃纤维粉作为一种性能极好的无机填料，具有强度高、模量高等优点。用来增强聚丙烯可以弥补其缺点，使这种增强后的复合材料有更广泛的应用。

本文总结各国学者的研究方案和进展，研究了以玻璃纤维粉为增强改性剂来增强聚丙烯材料。设计出一套玻璃纤维粉/聚丙烯复合材料制备实验所需、实验方案及工艺。设计出了玻璃纤维粉增强聚丙烯复合材料的工艺方案、工艺流程和工艺参数等。

关键词：聚丙烯；玻璃纤维粉；复合材料；改性

Abstract

This article summarizes the advantages and disadvantages of polypropylene; structure and properties; production sources; application areas and methods and processes of polypropylene modification at home and abroad by searching a large number of documents.

Polypropylene, as a plastic with good performance, has a wide range of applications in the fields of automobiles, home appliances, packaging and building materials. However, due to the fact that polypropylene itself is not tough enough and brittle at low temperatures, its further use is limited. Glass fiber powder has the advantages of high strength and high modulus, and is a very good reinforcing material. Used to reinforce polypropylene can make up for its shortcomings, so that this reinforced composite material has wider application.

This article summarizes the research programs and progress of scholars from various countries, and studies the use of glass fiber powder as a reinforcing modifier to reinforce polypropylene materials. Designed a set of glass fiber powder / polypropylene composite material preparation experiment requirements, experimental schemes and processes. The technological scheme, technological process and technological parameters of glass fiber powder reinforced polypropylene composite material are designed

Keywords: Polypropylene; glass fiber powder; composite materials; modification

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