

ABSTRACT

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MANUFACTURING OF PANASONIC REFRIGERATOR MICA USING PLASTIC INJECTION MOLDING MACHINE

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(xiv + 40 + Attachments)

The manufacturing process of refrigerator mica requires an efficient and cost-effective method, especially when producing in mass quantities. The production of mica for refrigerators is carried out using plastic injection molding with polystyrene as the base material. Injection molding is a process similar to a syringe, where plastic is melted in a barrel and injected into a tightly closed mold, filling the mold cavity according to the desired product shape. The aim of this writing is to understand the manufacturing process of refrigerator mica, analyze the working principles of the injection molding machine, and examine the use of polystyrene plastic as the injection material. Data collection is conducted through fieldwork, specifically during an internship at PT.Panasonic. Based on the results of the injection molding process, the thermoplastic heating process can be molded within 2-5 minutes using polystyrene material. The working principle of the injection molding machine involves raw material entering through a hopper, descending into the barrel where it is melted due to the heat generated by the iron rod outside the barrel. The molten material is then pushed forward by a reciprocating screw towards the nozzle, allowing the molten liquid to enter the mold. After the mold cools, the ejector opens the mold, and the product is ready for use. Polystyrene is chosen as the material because it creates strong, durable, and highly rigid products.

Bibliography (2008-2022)