Increasing the efficiency of labels production on plastic packages using In Mold Labeling technology in local market

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Abstract
Labels have an important role in the packaging industry, as the labels include many important information related to the product, they should be characterized by the shape and design as they are one of the main factors that attract the customer. The problem of the research represented in high costs, increasing stages and longtime of production and environmental problems local labels production. The aim of the research is to increase the efficiency of the production of adhesive labels on plastic containers using the technology of in mold labels, so we can achieve: reducing the stages of operation, reducing production time, increasing the quality level, and facilitating recycling operations. The research examined the workflow of the production of the in mold labelling technology, determining the most important factors affecting the quality of production and testing some of them to get recommendations that can be followed to benefit from this technology and to achieve the highest quality of production. Research results: 1. The ability of in mold labels to reduce the production costs lost in the production steps in many other types of labels. 2. The in mold labels achieve shape and quality better on the shelves and maintain the identity of the product for as long as possible. 3. The drying powder and varnishes are the most important factors affecting the quality of production as a whole, from the printing of labels to their installation during injection. The thickness of the labels causes unstable for labels during the molding of the packages. 4. Charging is a very important factor in charging the labels electrically to be installed inside the mold and in turn installed on the package in the right place. 5. Slipping of some labels due to non-operation of the charger or increase the thickness of the labels.

Keywords: Plastic Packages, Mold Labeling, Labels Production

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