

**Analisis Pengendalian Mutu Kemasan Pouch Kecap 550 mL
Pada Mesin RTY-10S Dengan Metode FMEA**
*(Quality Control Analysis of Soy Sauce Pouch Packaging 550 mL
On RTY-10S machine with fmea method)*
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ABSTRACT

This study aims to identify the types of failures in the 550 mL soy sauce pouch packaging process, determine the dominant type of failure, analyze risk priorities, identify the root causes of failure, and prepare improvement recommendations. The research methods used include Pareto Diagram, Failure Mode and Effect Analysis (FMEA), and Ishikawa Diagram. The research began with the identification of the type of failure in the packaging process which showed a defect rate of 17.17% of the total production. As a result of the Pareto analysis, the unfilled pouch is the dominant type of failure with a contribution of 92.4% of the total defective products so that priority is set for further analysis with the FMEA method. The results of the FMEA analysis showed four failure modes in the packaging process, including the vacuum pad not sticking to the surface of the pouch with a value (RPN: 126), followed by sticky packaging that made it difficult to open (RPN: 84), the gripper was not optimal in clamping the pouch (RPN: 64), and the failure of the pouch's position detection sensor (RPN: 60). Furthermore, the analysis of the Ishikawa Diagram shows that the failure is influenced by machine, method, material, measurement, and environmental factors. Based on the results of the analysis, improvement recommendations include the implementation of preventive maintenance, periodic inspections, setting operational parameter standards, quality control of packaging materials, and control of storage conditions to reduce the risk of failure in the packaging process.

Keywords: *Failure Mode and Effect Analysis (FMEA), Ishikawa, Pareto, soy sauce packaging, quality control.*