

## **ABSTRACT**

*PT.Papyrus Sakti is a company that produces Duplex Board paper for packaging industry. Achievement of the average production 4041.99 tons per month. According to historical data from the company in January 2013 - November 2014 the number of defect had fluctuation that exceed the company's monthly defect tolerance standard of 5%. Based on historical data of the company, the second largest defect is Bonding defect will be the focus of research.*

*This research used six sigma to reduce Bonding defect . The Phases of six sigma is DMAIC (Define, Measure, Analyze, Improve, Control). Phase define set three CTQ in the production process. Phase Measure to measure the stability of the process (Control chart p) and process capability (DPMO and sigma level). Phase analyze to choose the priority defect solve are namely Bonding Kambung and find the root cause. Phase Improve to proposed improvements to reduce Bonding Kambung defect.*

*Proposed improvements to the factors machine, man, and method as a factor of Bonding Kambung defect. There are Proposed improvements: using a measuring cup with a rate of 3.5% is a clear, implement appropriate regulation of working hours, Change the cloth cleaning tool with a Kanebo, remodel frenesstester engine, installing DDR speed sensor rotating disc, installing wire mesh filter on the water pipe into the dryer machine, install the LVDT sensors, and make the laboratory mini room to testing of materials.*

*Key words: Quality, Duplex Board, Six Sigma, CTQ, FMEA, Bonding Defect*