## ABSTRACT

PT Sempurnaindah Multinusantara as one of leading polymer industry that produce PVC Synthetic Leather has high waste disposal potencies in its daily operation. The Production of PT SIMNU, particularly the mixing deliver sludge waste that could potentially reduce the level of productivity an environmental pergformance. Therefore, appropriate efforts are needed, such as waste reduction. GP (Green Productivity) approach are expected to perform waste reduction efforts that improve environmental quality and productivity.

Adopting GP concept, measurements are carried out through the index EPI (Environmental Performance Index), level of productivity of companies dan GPI (Green Productivity Indicator). Furthermore, the improvement alternatives are formulated in accordance with the issues indentified and selected based on the estimated life cycle calculation, the estimated saving, estimated levels of productivity dan estimates of GPR (Green Productivity Ratio)

Alternatives are generated in the form of three main alternatives that can directly reduce the amount of waste, those are make cup of the mixing machine barrel, Steel Pallet Container procurement, Three Roll Mill procurement and two supporting alternatives, those are make description of 5S and improvement the layout of mixing. From the alternative selection, the best solution is Steel pallet Container procurement as an aid in the transportation of raw material. The advantages to this alternative is an increase in GPI as show in GPR indicated by 1.328, increase productivity levels of 1.328% and a saving of Rp 186.137.427,03.

Keywords: Productivity, Waste Reduction, Green Productivity, Green Productivity Index, Environment Performance Indicator