

## ***ABSTRACT***

*PT. Pertamina Talisman Jambi-Merang is the Oil dan Gas Company. Its production capacity has increased continuously at present. The production facility on each field need to support by supporting component on purpose of keeping the high capacity production. Gasket has a lot of contributions to each facility production. Late delivery occurred on gasket can cause inventory problem and maintenance schedule. The late delivery indicated that the supplier did not follow the Purchase Order document correctly. It's indicating that procurement need to evaluate each gasket supplier to enhance supplier performance. In order to get a comprehensive result, the scoring performance is based on many other criterias. Performance evaluation is calculated using FAHP method (Fuzzy Analytical Hierarchy Process) and TOPSIS (Technique for Order Preference by Similarity to Ideal Solution). Outcome from FAHP method is the priority of weight of each criteria. The highest priority is product specification criteria, the weight is 0.146. Then the score of supplier performance is calculated by TOPSIS method and the results are PTMP has score 81,3%, PTTM 81,09%, PTC 76,01%, PTBMB 73,75%, PTI 47,26%, PTA 41,13% dan PTFMM 13,56%.*

*Key Word : FAHP, Gasket, Procurement, Supplier, TOPSIS*