

**ANALISA VISUAL DAN KEKERASAN BAJA ASTM A36
DENGAN METODE HOT DIP GALVANIZING
ALUMINIUM***(Visual Analyse And Hardness of Astm A36
Steel With Aluminium Hot Dip Galvanizing Method)*
Andik Irawan *as chief counsellor* and Adityo *as member counselor*

Andi Zulfiqar
Automotive Engine Study Program
Engineering Department
Program Studi Mesin Otomotif
Jurusian Teknik

ABSTRACT

ASTM A36 Steel is low carbon steel that began to be used, because of the economical prize. But there are some disadvantage namely easy corrosion and lack of strength. So it's necessary to improve the quality of material especially the harness of material. Hot dip galvanizing is one way to improve material quality. Hot dip galvanizing itself is the process of metal coating with aluminium with steel as a substract, by dipping steel into a molten aluminium bath. And for the maximal product quality need to use the properly holding time and quenching media to get the good result. In this research , aluminium melting using heating furnace with holding time variation of 15 until 75 seconds, and hardness testing using Rockwell method. And the results obtained from the study of material at a hold time of 15 seconds increased by 3.3% of the raw material hardness value and at a hold time of 75 seconds the value of hardness increases by 19.7% of the raw material

Key words: *carbon steel, ASTM A36, hot dip galvanizing, hardness*