

**KEKERASAN DAN KETEBALAN PELAPISAN ALUMINIUM
PADA BAJA ASTM A36 HASIL PROSES HARDENING – HOT
DIP GALVANIZING DAN HARDENING TANPA HOT DIP
GALVANIZINNG (Hardness And Thickness Of The Aluminum
Coating On ASTM A36 Steel Resulting From Hot Dip
Galvanizing Hardening And Hardening Without Hot Dip
Galvanizing Process)**
Pembimbing (2 orang)

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ABSTRACT

Carbon ASTM 36 steel is a material much needed by the human in the industrial world to support daily needs, especially in the automotive industry. Because of it's low carbon, it is easily shaped by various tooling device. Based on the carbon content, carbon steel has considerable potential to be used as the raw material components of the machine, but because it's carbon content is below 0.3%, it has to be trated with heat to achive the desired degree of hardness. In the material's of science there are two ways of heat treatment to increase the value of hardness against steel, it's heat treatment and platic deformation. The heat treatment process in general is composed of hardening, tempering, carburizing and annealing. However, when the steel is used as components of automotive parts and construction, it is often damaged by corrosion. Based on this problem, the idea of conducting experiments to increase the quality of low-quality of the carbon steel ASTM A36. The expected outcome was an icrease in hardness and toughness against corrosion.

Key words: Hardness, Thickness, Hardening, Aluminum ASTM A36 Steel, Hot Dip Galvanizing.