UNIVERSITI TEKNOLOGI MARA

METALLOGRAPHIC OBSERVATION : ANNEALING AND QUENCHING ON ALUMINUM AND MILD STEEL

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ABSTRACT

The objectives of this project are to observe the hardness reaction by using Vickers hardness test towards high temperature reaction for a given time and to differentiate the microstructure features between aluminum and mild steel that undergoes annealing and quenching process. Annealing and Quenching process will be carried out vary on the specimens. For aluminum, annealing and quenching use 450 °C for 1 hour and 15 minutes respectively. Mild steel use 800 °C and 950 °C for 2 hours for annealing and quenching process respectively. Water quench is being used for both metal's quenching process. The result is obtaining the hardness value of aluminum and mild steel specimens. To conclude, the study is projected to relate the relationship of heat treatment process and hardness value of aluminum and mild steel.

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