

# Investigation of the Ageing Behavior of As-Cast Aluminium Alloy with Strontium-Addition

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## ABSTRACT

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The effect of T6 heat treatment on hardening response of A356 aluminium alloy is investigated using Vickers micro hardness test machine and microscope. Three experimental conditions are being found. First, investigate the characterization of hardness and microstructure variation in response to solid solution treatment. Second, investigate the aging behaviour for different time duration at 3 different aging temperatures. Third, investigate the behaviour of 2-step aging at 140°C followed by 200°C, with variation in staging interval between two aging steps. Based on the results, artificial aging in higher temperature expedites the attainment of peak hardness with comparatively lower hardness recorded. As for the 2-step aging, hardness is increasing overall even through there are some fluctuation during the process.