

Effect of Microstructure on Transition Temperature of Austempered Ductile Iron (ADI)

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Abstract : The ductile to brittle transition temperature is a very important criterion that is used for selection of materials in some applications, especially in low-temperature conditions. For that reason, in this study transition temperature of as-cast and austempered unalloyed ductile iron in the temperature interval from -60 to +100 degrees C have been investigated. The microstructures of samples were examined by light microscope. The impact energy values obtained from the experiments were found to depend on the austempering time and temperature.

Keywords : Austempered Ductile Iron (ADI), Charpy test, microstructure, transition temperature

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