

Gas Tungsten Arc Welded Joints of Cast Al-Mg-Sc Alloy

Authors : K. Subbaiah, C. V. Jeyakumar, S. R. Koteswara Rao

Abstract : Cast Aluminum-Magnesium-Scandium alloy was Gas Tungsten Arc (GTA) welded, and the microstructure and mechanical properties of the joint and its component parts were examined and analyzed. The global joint fractured in the base metal, and thus possessed slightly greater tensile strength than the base metal. These results clearly show that Gas Tungsten Arc welding is an optimum / suitable welding process for cast Aluminum-Magnesium-Scandium alloys.

Keywords : cast Al-Mg-Sc alloy, GTAW, microstructure, mechanical properties

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