World Academy of Science, Engineering and Technology
International Journal of Materials and Metallurgical Engineering
Vol:9, No:12, 2015

Effect of Welding Processes on Tensile Behavior of Aluminum Alloy Joints

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Abstract : Friction stir welding and tungsten inert gas welding techniques were employed to weld armor grade aluminum alloy to investigate the effect of welding processes on tensile behavior of weld joints. Tensile tests, Vicker microhardness tests and optical microscopy were performed on developed weld joints and base metal. Welding process influenced tensile behavior and microstructure of weld joints. Friction stir welded joints showed tensile behavior better than tungsten inert gas weld joints.

Keywords : friction stir welding, microstructure, tensile properties, fracture locations
Conference Title : ICMSME 2015 : International Conference on Materials Science and Mechanical Engineering
Conference Location : Bangkok, Thailand
Conference Dates : December 17-18, 2015