

Friction Stir Welding of Aluminum Alloys: A Review

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Abstract : Friction stir welding is a solid state joining process. High strength aluminum alloys are widely used in aircraft and marine industries. Generally, the mechanical properties of fusion-welded aluminum joints are poor. As friction stir welding occurs in the solid state, no solidification structures are created thereby eliminating the brittle and eutectic phases common in fusion welding of high strength aluminum alloys. In this review, the process parameters, microstructural evolution and effect of friction stir welding on the properties of weld specific to aluminum alloys have been discussed.

Keywords : aluminum alloys, friction stir welding (FSW), microstructure, Properties.

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