Studies On Strength properties Of Mg Alloy Friction Stir Weldments with variation of process parameters

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Abstract - Extensive data has been reported in literature on the tensile strength values of friction stir weldments including Mg alloys and their variation with process parameters. The effect of the various alloying elements on resistance, poisson ratio, thermal conductivity corrosion resistance etc, have also been reported in the literature. An attempt is made in this paper to make an exhaustive review of recent research papers published on strength properties versus process parameters of friction stir weldments of Mg and other alloys and to critically discuss the issues and challenges associated with above subject on friction stir weldments. Various conclusions drawn from of the present work are presented. The major contribution of the present work lies in updating the research findings on strength values versus process parameters of friction stir weldmets. This study is likely to pave way for developing technologies for improving the mechanical properties of friction stir weldments. Though the paper concentrates on Mg alloys, a comprehensive study of other alloys is also made to have an indepth understanding of the latest work conducted in the current field.