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## A Review on Mechanical and Chemical Properties of Friction Stir Welded Alloys of Al, Mg and Other Related Metals

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### Abstract :

Extensive data has been reported in literature on the mechanical and chemical properties of Al, Mg and steel alloys of friction stir weldments. 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 mechanical and chemical properties of friction stir weldments of Mg and other alloys and to critically discuss the issues and challenges associated with the properties. Various conclusions drawn from of the present work are presented. The major contribution of the present work lies in updating the research findings on mechanical and chemical properties of friction stir weldmets. This study is likely to pave way for developing technologies for improving the properties of friction stir weldments. Though the paper concentrates on Al and 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.