

## عنوان مقاله:

Feasibility of Joining Al-20%Mg<sub>2</sub>Si In-Situ Composite By TIG Welding

## محل انتشار:

دومین کنفرانس بین المللی آلومینیوم (سال: 1391)

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## خلاصه مقاله:

The feasibility of joining an in situ Al-20%Mg<sub>2</sub>Si composite by TIG is investigated. Welding current was varied at five different values between 80 and 100 amp. Different areas were identified in the weldment region due to effect of welding specification. Mechanical properties of joints were evaluated by Tensile and microhardness tests. Joints welded with a welding current in the range of 80-85 amp displayed the highest degree of hardness. The fracture produced in the welded specimens was in the base metal MMC, indicating a strong interface between the base MMC and the weld. Therefore, the study finds that in situ Al-Mg<sub>2</sub>Si MMC can in fact be welded using TIG and Al-Si filler metal.

## کلمات کلیدی:

Aluminium; In-situ composite; Joining; TIG

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/193532>

