

Mg AZ31B Alloy Processed through ECASD

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Abstract : Mg AZ31B alloy sheets were processed through equal-channel angular sheet drawing (ECASD) process, following the route A and C at room temperature and varying the processing speed. SEM was used to analyze the microstructure. The grain size was refined and presence of twins was observed. Vickers microhardness and tensile testing were carried out to evaluate the mechanical properties, showing in general; a remarkable increase in the first pass and slight increases during subsequent passes and, that the route C produces better uniform properties distribution through the thickness of the samples.

Keywords : ECASD, Mg Alloy, mechanical properties, microstructure

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