عنوان مقاله:

An Investigation on the Bond Strength of Aluminum Strips in the Presence of Brass Mesh after Cold Roll Bonding

محل انتشار:

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نویسندگان:

E. Tolouei - *Department of Materials Engineering, Isfahan University of Technology, Isfahan 84156-83111, Iran*

M. R. Toroghinejad - *Department of Materials Engineering, Isfahan University of Technology, Isfahan 84156-83111, Iran*

F. Ashrafizadeh - *Department of Materials Engineering, Isfahan University of Technology, Isfahan 84156-83111, Iran*

خلاصه مقاله:

In this study, the presence of brass mesh on the bond strength of aluminum (AA1050) strips in the cold roll bonding (CRB) process was investigated. The influence of various process parameters including reduction in thickness, pre-rolling annealing, initial thickness of the strips, and post-rolling annealing was also considered. After CRB process, peeling test was carried out and peeled surfaces were examined by optical and scanning electron microscopes (SEM). Energy dispersive spectroscopy (EDS) analysis also, revealed that there was neither diffusion zone, nor formation of intermetallic at the interface of aluminum and brass wires after annealing at 643 K. It was found out that, by increasing the amount of reduction and initial thickness, the bond strength of the layers was increased. .Furthermore, pre-rolling and post-rolling annealing treatments at 643 K increased the bond strength

کلمات کلیدی:

Bond strength, Cold roll bonding, Peeling test, Composite