

鋁摩擦攪拌點焊的靜態破壞機制

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摘要

摩擦攪拌點焊(spot friction welds, SFW)是一項新的接合製程技術。根據實驗觀察，探討摩擦攪拌點焊對於6061-T6鋁合金板材焊點的顯微結構以及缺陷。使用不同的焊接參數來結合鋁板，並且利用光學顯微鏡來觀察摩擦攪拌點焊在拉伸試驗破壞前與破壞後的焊點截面。實驗觀察顯示，在拉伸負載的情況下，裂痕是從焊點中心靠近攪拌區的地方開始出現，沿著焊點延伸至表面最後破裂。

關鍵詞：摩擦攪拌點焊，拉伸試驗，破壞，微結構

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