

Light alloys plates welded joints

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ABSTRACT

In the field described by the topics of the title, there are different ways to achieve the joint. One of them is the spot cold pressure welding. First, the paper presents the experimental results regarding the sharing strength test of the spot cold welded joints. The purpose of the research was to analyze different variant of welding, in order to optimize the resistance parameters of the welded joint. The tests were made on unilateral and bilateral welded joints, using sheets of aluminium plates with equal and non-equal thickness. In the second part of the paper, the authors propose a very easy to implement method combining the cold pressure welding with the mechanical clinching. Macro-structure of the joint area in all the variants tested, including the differences recorded for the sharing strength are presented, as too. The conclusions reveal the solution for optimizing the thin aluminium alloys plates joining processes, using the criteria of economical efficiency and a better quality (including a good-looking joint).

References

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