

THE INFLUENCE OF ENTRANCE PARAMETERS ABOVE THE ALUMINIUM ULTRASONIC WELDING RESISTANCE

Apetrei L.¹, Oanca O.², Toma C.², Sirbu A.², Munteanu A.¹

¹Technical University "Gheorghe Asachi" of Iasi - Romania ² National Research and Development Institute for Welding and Material Testing (ISIM) from Timişoara - Romania

Corresponding author: Lacramioara Apetrei, apetreil@yahoo.com

Abstract: The ultrasonic welding of metals ensures a superior quality of the welded join, a good reproducibility, short machining time and reduced energy consumption, in comparison with same indicators valid for the classic welding. The paper presents the influence of some enterence parameters above the joint resistance of the aluminum ultrasonically welded. The macro and microstructural analysis of ultrasonically welded aluminum is proving an excellent metallurgical bonding. There were made microhardness tests wich are demonstraiting a high quality of the ultrasonic welded joint. All the experiments were made in the National Research and Development Institute for Welding and Material Testing (ISIM) from Timişoara.

Key words: ultrasonic welding, entrance parameters, joint resistance.