

## INDIRECT COLD WELDING ON COGGED SURFACES

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### ABSTRACT

*Welding by cold pressing on cogged surfaces, produces the joint of a component made from an easy deformable metal (aluminium) by pressing on the cogged surface of a harder metal component (copper, brass, steel, stainless steel). The experimental results show that the weld can be achieved at lower deformation rates than in the classical cold welding case. The weld is obtained only by deforming the aluminium component at a deformation rate of 15 ... 20%. The weld contact electric resistance is negligible, thus recommending the process for producing dissimilar elements used in electrotechnics. At indirect welding, the intermediate metal must be welded with each sample, according to their plasticity. Depending on their plasticity, it can be discussed upon cold welding on cogged surfaces with an easy deformable intermediate layer or with a hard metal intermediate layer.*

**KEYWORDS:** cold welding, pressure welding, aluminium joints

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