

ARGON-NITROGEN GAS MIXTURES FOR MICRO-JET COOLING AFTER STEEL WELDING

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1. General

The material selected for this investigation was low alloy weld metal deposit after MIG welding with micro-jet cooling. The present investigation was aimed as the following tasks: obtained WMD with various amount of nitrogen and observe amount of acicular ferrite in WMD in terms of nitrogen content. Paper focuses on low alloy steel after innovate welding method with micro-jet cooling. Weld metal deposit (WMD) was carried out for MIG welding with micro-jet cooling with various amount of nitrogen. Micro-jet cooling after welding can find serious application in automotive industry very soon. Until that moment only argon, helium and nitrogen were tested as micro-jet gases. In that paper first time various gas mixtures (gas mixtures Ar-N₂) were tested for micro-jet cooling after welding. An important role in the interpretation of the results can give methods of artificial intelligence.