

Influence de l'énergie de soudage sur la microstructure et la résistance à la corrosion de l'acier inoxydable Lean duplex UNS S32101

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Abstract: Duplex stainless steels are widely used in industry, because their two-phase structure with equivalent fractions in austenite and ferrite gives them very interesting mechanical properties and high resistance to different types of corrosion. However, the use of these steels is limited by their sensitivity to the formation of hazardous intermetallic phases with adverse effects on hardness and corrosion resistance. It is a weakening of the material that is visible under certain welding conditions. The subject deals with the study of a welding process applied Lean duplex stainless steel, LDX 2101 to a nickel-reduced stainless steel and aims to show the influence of the experimental parameters (03 energies) on the microstructural and stress corrosion resistance properties (CSC) of the weld joint

Keywords : Lean duplex stainless steel, LDX 2101, welding energy, stress corrosion cracking (SCC)