

Caractérisation microstructurale et micromécanique d'un assemblage X60/316L, réalisé par Cladding, après déformation par laminage à chaud.

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Abstract: The objective of this work is to study the behavior of an assembly composed of a high yield strength steel and an austenitic stainless steel made by the cladding process under the effect of hot working followed by recrystallization annealing. Microstructural and micromechanical characterizations were performed on the whole multi-material and at the interface. In the present work, we have highlighted the importance of understanding and mastering the aspects of phase transformation and recrystallization mechanisms in order to optimize the mechanical properties by thermal and/or thermomechanical treatment.

Keywords : Cladding, HSLA steel, stainless steel, thermomechanical treatment, recrystallization, phase transformation, Microhardness, annealing.