

EFFET DE LAMINAGE A CHAUD SUR LE COMPORTEMENT DE LA RECRYSTALLISATION DE L'ACIER INOXYDABLE FERRITIQUE TYPE 409

R. Benchouieb, D. BERDJANE, S. Achouri, O. GHELLOUDJ, F. LEMBOUB

Abstract: The behavior of the static recrystallization of this ferritic stainless steel type 409 which contains precipitates was examined using hot rolling test of a single pass. Hot rolling tests were carried out at temperature of 870°C from a thickness of 15mm to 8,4mm and 4,7mm thickness at a controlled strain rate of 3.3s⁻¹. The recrystallized volume increases with the increase of the reduction and the holding time after hot rolling. Nucleation of recrystallising grains appears to be associated with triple points and grain boundaries. This material displays a slower rate of recrystallisation and this is attributed to the presence of titanium

Keywords : ferritic stainless steel type 409, precipitates, deformation variables, hot rolling, dynamic recovery, static recovery, static recrystallization