

Title: Effect of Rolling Process on Microstructure of 2A66 Al-Li Alloys Sheet

Abstract: Influences of rolling process on microstructures of 2A66 Al-Li alloy thin sheet are investigated. Specimens with three different rolling processes and two heat treatments are taken into consideration. Results show that the passes of rolling process have a significant influence on Al-Li alloy textures. When the cold rolling reduction is 26%, there are some coarse particles identified as Al₃Zr phase existing in the alloy and the anisotropy becomes obvious with low grain refinement. Under the cold rolling reduction 44.4%, the recrystallization grain increases and the grain refinement becomes better with the appearance of recrystallization, besides little larger grain. With a cold rolling of 48.7%, textures in alloy are better than 44.4% at homogeneity except the stratified phenomenon.