

상온 대기 중에서 인코넬 600 과 690 의 슬라이딩 마모
Sliding wear of Inconel 600 and 690 in room temperature air

홍동석, 김경국, 김준기*, 김선진
한양대학교 재료공학부, *생산기술연구원
(dragonhong76@hotmail.com)

Sliding wear behaviors of Inconel 600 and 690 were investigated at room temperature in air. In the present study, Archard's equation which has low reliability was modified. In the prediction of wear volume by Archard's equation, the reliabilities of Inconel 600 and 690 were about from 26.3% to 45.7% and from 69.1% to 88.6%, respectively. The sliding wear behaviors of Inconel 600 and 690 turned out to be influenced by their stacking fault energy, and the fact was confirmed by using TEM and micro-hardness test. Based on experimental results, the wear coefficient was modified as a function of the sliding distance. The calculation with the modified wear equation showed that the reliability of Inconel 600 tested with 409 ferritic stainless steel increased from 45.7% to 93.4%.