

The Dry Sliding Wear Behaviour of Aluminum Composites: A Review

Lawrence O. Osoba^a, Oluwaseyi O. Taiwo^{b,Ψ} and Samson O. Adeosun^c

Metallurgical and Materials Engineering Department, University of Lagos, Akoka, Nigeria;

^aE-mail: losoba@unilag.edu.ng

^bE-mail: taiwooluwaseyi2003@yahoo.com

^cE-mail: sadeosun@unilag.edu.ng

^Ψ Corresponding Author

(Received 16 November 2016; Revised 16 March 2017; Accepted 12 May 2017)

Abstract: Aluminum composites has been of wide applications in the automobile, aerospace, defense and other engineering sectors especially where dry sliding wear plays major role. Many processing techniques have been used over time depending on various predetermined criteria. This review presents effects of dry sliding parameters (sliding speed, sliding distance and load) coupled with process parameters (stir cast and reinforcement parameters) on the dry sliding (adhesive) wear behaviour of aluminum composites produced by stir casting technique. Many investigative works have been done on the impact of sliding speed, load and distance but only few of such studies linked stir casting and reinforcement parameters with the wear properties of aluminum composites.

Keywords: Aluminum composites, dry sliding wear, stir casting, specific wear