

## Development and Characterization of Wear Properties of Aluminum 8011 Hybrid Metal Matrix Composites

**Authors :** H. K. Shivanand, A. Yogananda

**Abstract :** The objective of present investigation is to study the effect of reinforcements on the wear properties of E-Glass short fibers and Flyash reinforced Al 8011 hybrid metal matrix composites. The alloy of Al 8011 reinforced with E-glass and fly ash particulates are prepared by simple stir casting method. The MMC is obtained for different composition of E-glass and flyash particulates (varying E-glass with constant fly ash and varying flyash with constant E-glass percentage). The wear results of ascast hybrid composites with different compositions of reinforcements at varying sliding speeds and different loads are discussed. The results reveals that as the percentage of reinforcement increases wear rate will decrease.

**Keywords :** metal matrix composites, aluminum alloy 8011, stir casting, wear test

**Conference Title :** ICMET 2015 : International Conference on Materials Engineering and Technology

**Conference Location :** Melbourne, Australia

**Conference Dates :** December 13-14, 2015