

DEVELOPMENT OF AL-AL₂O₃ MMCS BY DIMOX & DEVELOPED COMPOSITES CHARACTERIZATION

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ABSTRACT

Amongst several metals, Aluminium (Al) is attractive due to its ductility, malleability, good conductivity, light weight, good strength, availability in abundance (8% of earth crust is aluminium). Alumina (Al₂O₃) is the most cost effective and widely used material in the family of engineering ceramics for preparing Al based metal matrix composites. In the present work, the investigators have attempted to develop aluminium based composites prepared by direct oxidation of aluminium under ambient conditions using stir casting technique. The process parameters have been varied in limited range and their effect on microstructure and mechanical properties of the composites is discussed

KEYWORDS: Metal Matrix Composites, DIMOX, Stir Casting.