


RESEARCH ARTICLE | OCTOBER 29 2020

Machining and abrasive wear performance of tantalum carbide based stellite metal matrix composite

P. Ganesan ; S. Paulsingarayar; S. Joseph Dominic Vijayakumar;
S. Sridhar; D. Madan

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AIP Conf. Proc. 2283, 020054 (2020)

<https://doi.org/10.1063/5.0029320>

The application of metal matrix has been increased in manufacturing industries. The demand of advanced metal matrix in aerospace and nuclear plant has gradually increased. The stellite is one of super alloys which consist of cobalt and chromium. In present article deals with the machining performance of tantalum carbide (TaCx) based stellite metal matrix composite. The various unconventional machining processes such as Ultra Sonic Machining (USM) and Laser Beam Machining (LBM) processes are used to machine the metal matrix composite. The various control and response parameters are considered for the experimental investigation. The abrasive wear resistance is also discussed.

Topics

Composite materials, Alloys, Machining, Materials degradation, Transition metals, Industry

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UGC Approved Journal No: 63975