



Evaluation of Nbc Tools

Motivation

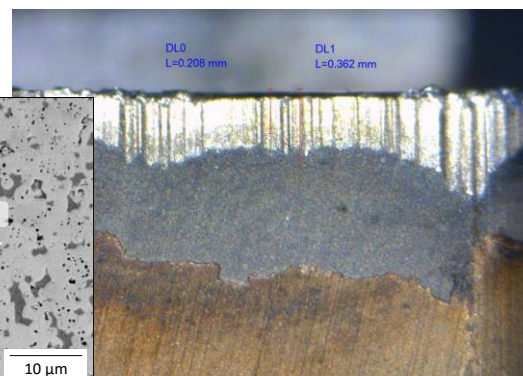
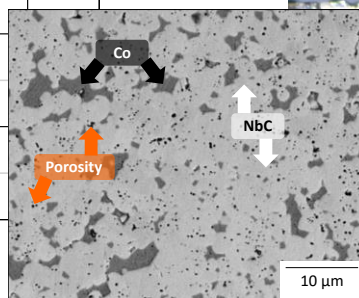
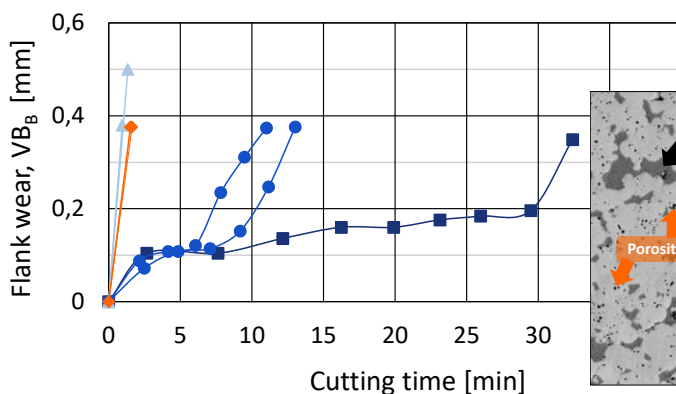
The larger known niobium reserves are at Brazilian territory. The company CBMM is searching for different uses for the niobium and one potential use is to substitute the cemented carbide of cutting tools substrates by the niobium carbide.

Objective

To evaluate the efficacy of the tools made with niobium carbide as their substrate.

Approach

Execute experiments to investigate the cutting tools characteristics – microstructure and mechanical properties and coating analysis, tool wear assessment – tool life experiments and wear mechanisms, and exploratory machining experiments – surface finishing, cutting force and chip characteristics.



Contact: +55 (12) 3947-6948

Praça Marechal-do-Ar Eduardo Gomes - Vila das Acácias
São José dos Campos - SP, 12228-900

Project Responsible: Prof. Dr. Anderson V. Borille