

**INNOVATIVE TECHNOLOGIES TO INCREASE THE CAVITATION EROSION RESISTANCE OF
BRONZES AMPCO M4**

OANCA Octavian, BORDEASU Ilare, MITELEA Ion, CRACIUNESCU Corneliu Marius,
SÎRBU Nicusor Alin

Politehnica University of Timisoara, Timisoara, Romania, EU

Abstract

Paper analyzes the influence of the surface properties on the ultrasonic cavitation erosion of the complex alloyed bronze AMPCO M4 in two states: extruded and heat treated (quenched + tempered) and afterward work hardened through mechanical percussion. The cavitation erosion was realized in a laboratory facility which respects integrally the indication of the ASTM G-32 Standard. Additional hardness measurements of the cavitation-affected surface layer have been performed, as well as roughness measurements. All the same, by scan microscopy SEM, evidence was made of the destruction, that are an effect of the treatment of mechanical percussion.

Keywords: Cavitation erosion, hardness, roughness, microstructure, complex alloyed bronze

Author did not supply full text of the paper/poster.