DETERMINING LIMIT DEFORMABILITY CURVES OF SOME FERROUS METALS

Miodrag Petrović, MSc[1]**; Srđan Ribar, PhD**[2]

[1] Copper Mill, Sevojno, Užice, SERBIA, e-mail: mpetrovic@vbs.co.rs

[2] University of Belgrade, Faculty of Mechanical Engineering, Belgrade, SERBIA, e-mail: sribar@mas.bg.ac.rs

Abstract: Deformability is a key term in the field of metalwork processing. Whether one part can or can not be made by deformation processing processes without the appearance of cracks or other errors is great economic interest. Deformability of the material can be considered as its potential value, whose smaller or larger expression depends on process parameters that can be changed or optimized. Boundary deformability can be defined as the ability to attain the maximum possible (boundary) deformations under the appropriate stress-deformation and other conditions in the processing system [1]. The research was carried out in order to determine the boundary deformability diagram for two types of non-ferrous metals (copper DVP1-Cu and CuZn37 brass) which are processed in the Copper Mill in Sevojno. The research represent a novelty in the approach to determining the maximum deformations that some material can handle depending on the stress condition.

Ključne reči: *Deformability, boundary deformability, formability index*