



“Gheorghe Asachi” Technical University of Iasi, Romania



OPTIONS FOR THE VALORIZATION BY RECIRCULATION OF POWDER MATERIAL FOR STEEL MANUFACTURE IN EAF

**Mirela Gabriela Sohaciu, Avram Nicolae, Cristian Predescu*,
Ștefan Velicu, Gheorghe Gh. Calea**

Politehnica University of Bucharest, 313 Splaiul Independentei, sector 6, Bucharest, 060042, Romania

Abstract

This paper aims to propose a new solution for rational valorization of the secondary powder materials from steel making in electric arc furnaces. The elaborated steel quality as well as the economical advantages represented by secondary powder materials recirculation were studied. A good correlation between the proportion of brickets loaded into the melt and the melting of carbon has been found. The proportion of the EAF dust brickets can grow even at 5-7%. Zinc presence could have negative effects on the mechanical characteristics of steel. In terms of the economic indicator it was used the simple eco-efficiency.

Key words: economic efficiency, quality, recycling, secondary powder materials

* Author to whom all correspondence should be addressed: e-mail: ecomet@ecomet.pub.ro; Tel/Fax: 0213169564