

## HOT STAGE PROCESSING OF STEEL SLAG AND THE BENEFITS FOR BITUMINOUS MIXTURES

**I.G. Liapis & A. Chasiotis**

AEIFOROS Metal Processing SA, Thessaloniki, Greece

### *ABSTRACT*

When compared to natural aggregates for uses in the construction industry, slags have higher specific weight that acts as an economic deterrent. A method of altering the specific weight of EAFC slag by hot stage processing and mineral mixing, during steel production is presented. Measurements of specific weight are accompanied by XRD and XRF analysis and SEM spectral images for both unmodified and modified slag samples. The process is repeated for the most suitable mix in gas furnace and physical properties are examined. Unmodified and modified slags are then used in mix designs for the thin wearing course. The results show that addition of specific mineral can result in significant specific weight reduction of slag and, thus, the use of the modified slag in asphaltic concrete is proven economically beneficial. Alteration of the specific weight can result in tailoring slag properties for specific applications in the construction sector.