

**EVALUATION OF TECHNICAL AND ECONOMICAL VIABILITY OF THE
INDUSTRIAL CO-OPERATION OF ALUMINUM PROCESSING AND CEMENT
INDUSTRY ENVIRONMENTAL DIMENSION OF THE SOLUTION**

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ABSTRACT

Secondary aluminum processing produces considerable amounts of dross, which cannot be directly exploited for aluminum recovery. The objective of this study is to examine the possibility of industrial co-operation between the aluminum and cement industries. It is shown that it is possible to use dross stemming from secondary aluminum processing to substitute raw materials in the raw meal with aluminum oxides, such as bauxite and kaolin. Experimental measurements were carried out in order to characterize aluminum dross, the raw meal and clinker produced with the use of aluminum waste. Cement was industrially produced and issues relating to the industrial production are considered. The work examines the situation in Greece regarding environmental, legislative and economical issues. The solution appears to be economically viable and could solve a large problem for the Greek aluminum industry.