STABILIZATION OF POST-GALVANIC SLUDGE USING PORTLAND CEMENT AND SILICA FUME

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Abstract: Solidification in mineral binders is one of the useful methods of neutralizing hazardous materials. In this work some waste created after neutralization of used etching baths, obtained in the process of wire galvanizing and copper plating were solidified by cement mortar with and without silica fume. The researches showed that the addition of waste to cement mortar in the amount of up to 5% is safe in respect of ecology. At such an amount of waste addition to cement, metals are permanently immobilized in a matrix. While the addition of 10% of silica fume to cement improved the strength properties of products, it had no influence on the enhancement of immobilization of metals in cement mortars.