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MEASUREMENTS TO EVALUATE THE POSSIBILITY TO PRODUCE BRICKS FROM WASTE CUBILOTT SLAGS

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Abstract

In this paper, the typical measurement techniques and production procedures defined in the UNI-EN guidelines for ceramic manufacture are taken into consideration to evaluate the properties and the characteristics of the bricks produced by using a mixture containing cubilott slag. The results of the experimental tests demonstrate that these measurement techniques are not enough to define the safety of the waste bricks. Up to now, UNI-EN guidelines for ceramics do not define crystallinity measurement for the products and then do not foresee to determine the interaction between slag and clay. In this paper, a solution for this lack is proposed. In particular, the Thermal Analysis, X-Ray Diffraction, and the measurement of dangerous ions releasing are considered. The experimental results suggest that these techniques should be included UNI-EN guidelines because allow the definition of specific properties to the waste materials.

Key words: biomass, biorefinery, systems design, zero emissions

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