

## RECYCLED MATERIALS USED IN THE PRODUCTION OF BUILDING MATERIALS FOR MASONRY

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**Rezumat.** *Lucrarea își propune să arate utilizarea cenușei de electrofiltru (cenușa zburătoare) de la centralele electrotermice pe bază de cărbune și a sticlei reciclate, ca materii prime pentru obținerea cărămizilor și a blocurilor de zidărie.*

*Produsul care face obiectul lucrării este un geopolimer și se bazează pe o reacție de polimerizare a unor oxizi anorganici, rezultând dezvoltarea unor tehnologii cu consumuri reduse de energie și de emisii de dioxid de carbon.*

**Abstract.** *The paper aims to show the use of fly ash (fly ash) from coal-fired power plants*

*and recycled glass as raw materials for obtaining bricks and masonry blocks.*

*The product that is the subject of the work is a geopolymer and is based on a polymerization*

*reaction of some inorganic oxides, resulting in the development of technologies with low energy consumption and carbon dioxide emissions.*

**Keywords:** Fly ash, recycled glass, brick

### 1. Introduction

The problem at the global level at the moment is the confrontation with the challenge of warming and climate change due to the increase in the concentration of carbon dioxide (CO<sub>2</sub>) greenhouse gases.

In accordance with current trends, industrial sectors try to maintain a high quality of life, which involves the development of technologies with reduced energy consumption and CO<sub>2</sub> emissions.

The construction materials industry, mainly cement and masonry materials, are largely responsible (7%) for carbon dioxide emissions.

Geopolymerization as a technique for obtaining a new material that can be a geopolymer or a material in the structure of which a geopolymeric gel is formed,

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