

## THERMAL INSULATION MATERIALS WITH POROUS STRUCTURE

### MATERIAŁY TERMOIZOLACYJNE O STRUKTURZE POROWATEJ

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#### Abstract

*The raw mix of silica-containing technogenic component – fly ash of thermal power plants – and the methods of preparing waterproof porous thermal insulating materials of extended application on its base according to the powder low-temperature technology has been developed using multifunctional properties of soluble glass as: a) a binding component; b) blowing agent; c) the raw mix hardening rate regulator. The physical and chemical, technological aspects of obtaining and using the suggested alkaline-silicate compositions have been considered.*

#### Streszczenie

*W artykule przedstawiono zagadnienie produkcji wodoodpornych materiałów termoizolacyjnych przy wykorzystaniu mieszanek zawierających krzem i popiół lotny, pochodzący z elektrowni w oparciu o niskotemperaturową technologię proszkową. Opiera się ona o wykorzystanie szerokich właściwości szkła wodnego, tj. jako: a) element łączący, b) element spulchniający, c) regulator twardnienia. W pracy rozpatrzono fizyczno-chemiczne i technologiczne aspekty wytworzenia i wykorzystania tego typu kompozytów.*

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