

ABSTRACT

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KILN ENGINE WORKING PROCESS IN CERAMIC COMBUSTION

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(xi + 42 + Attachments)

In the modern industrial world ceramics become one of the highly developed materials of production, given the high need in society for this type of strong material, sap, and have a long life. Ceramics have the basic materials of clay, feldspar, sand (quartz) and kaolin. The process of ceramic formation consists of 5 stages, namely material processing, forming, drying and heating. In the first stage of ceramic constituent materials mixed with the use of mixers to obtain a homogeneous or uniform mixture of materials, the next stage of formation, this stage is done by molding techniques used pour printing method. After that the ceramics will be dried in a closed room with a dryer to remove moisture content so that the particles touch each other and shrinkage stops. Before the burning is done to add beauty and to be waterproof, after that ceramics are burned in kiln machine. Initial combustion in the canopi at 100°C is first carried out and then enters the firing zone and a gradual combustion from 500°C to 1200°C is followed by a gradual cooling of the cooling zone. The combustion process until cooling finishes in kiln lasts for 14 hours.