

The Effect of Fe₂O₃ and Sum of Alkalis Elements on Monocotora Tile

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Abstract : The study of this research is the effect of using Fe₂O₃ and sum of alkalis elements in the floor tile production. At first, raw materials of floor tile with the same formulation of original sample was prepared and sintered for 39 minutes at 1130°C in roller kiln and finally, physical properties of the sintered bodies based on floor tile standard process was investigated. The results showed that there was the possibility of production of floor tile containing different percentages of Fe₂O₃ and sum of Na₂O+ K₂O. With increasing the Fe₂O₃ and sum of Na₂O+ K₂O elements, the percentages of water absorption and raw, dry and sintered strengths were decreased, but the percentages of shrinkage were increased which caused the decreasing the percentages of expansion.

Keywords : floor tile, physical properties, Na₂O+ K₂O, Fe₂O₃

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