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DEVELOPMENT OF CERAMIC COATING WITH THERMAL COMFORT IN CONTACT

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The sensation of thermal comfort of a individual to the built environment around him is related to the local environmental conditions and the properties of materials used. The adequacy of the microstructure and the consequent increase in surface roughness of tiles may lower its thermal conductivity. This work presents studies of the development of non-enameled tiles for indoor environments designed from the reuse of industrial waste. Reducing the density of ceramic bodies can be obtained by the inclusion of pores resulting from raw materials and processing conditions employed. Different compositions were prepared with residues of the cutting and polishing of tiles bunched by partial substitution on a mass. Respective matrices of comparison, without the incorporation of waste, were prepared in equal conditions of processing. Assessments of thermal comfort of tiles developed are described by their thermal and mechanical properties. The results show that the incorporation of the residue results in the formation of surfaces with higher roughness and also as the porosity and roughness increase, there is a significant improvement in comfort by contact.

Keywords: ceramic coatings, thermal comfort, industrial waste, development of products.