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COMPLIANCE ANALYSIS OF TILES IN RED CERAMIC IN NORTHWEST OF RIO DE JANEIRO AND AREA OF THE EASTERN "ZONA DA MATA MINEIRA"

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Since the Neolithic period, the clay is used in the production of and materials manufacturing for the construction of buildings. At the end of the Stone Age, the cooking of materials began in furnaces in order to get resistance increase that would allow their use in most abrasive ways. Development and improving their properties, the material ceramic found various destinations such as tiles, bricks, crockery and coatings. The specifically tiles have a job as old as the brick. In the region studied, northwest of Rio de Janeiro and the area of the eastern "zona da mata mineira", the tiles produced and commercialized exhibit characteristics corresponding to local clay and the firing method. In this work It was assessed the quality of ceramic tiles in the region, according geometrical, physical and mechanical characteristics, standardized by the applicable standard NBR 15310:2009. According to analysis of the results, concludes that the trend of the quality of existing ceramic tiles in the market is not meeting the current parameters by the Brazilian standard. the geometric test had the highest number of non-conformities; it is only plan ceramic tiles approved, indicating that the tendency of existing ceramic tiles is not meeting this requirement. The surface flatness and the yield tests also showed higher deviations in relation to the acceptable standard. The non-conformities found in the samples indicates that there was fault in the product manufacturing control and batch approval of control that releases the material to the factory output, as a result, consumers find products on the market without standardization.