

03-019

DETERMINATION OF THE PHYSICAL, CHEMICAL, MINERALOGICAL AND THERMAL PROPERTIES OF ARGYLUS MASS OF THE MUNICIPAL AREA OF CARDOSO MOREIRA - RJ, BRAZIL, OBJECTIVING THE PRODUCTION OF PRESSED AND BURNED BLOCKS

Cerqueira, N.A.(1); Souza, V.B.(2); Azevedo, A.R.G.(3); Alexandre, J.(3); Coutinho, G.M.R.(2); Xavier, G.C.(3); Andrade, D.L.(2); Da Silva, L.X.P.(2); Zanelato, E.B.(3); Marvila, M.T.(3); (1) UNIREDENTOR; (2) UniRedentor; (3) UENF;

This work evaluated the feasibility of the use of ceramic mass from Cardoso Moreira, Brazil, for the production of pressed ceramic blocks, based on the physical, chemical, mineralogical and thermal properties of the soil. The physical analysis indicated that the ceramic mass presents 35.8% of clay and density of 2,58 g / cm³. The chemical analysis was done using dispersive energy equipment, presenting high levels of silicon dioxide (SiO₂) and aluminum oxide (Al₂O₃), these results indicate that the soil has refractory properties. The mineral analysis, performed by means of an X-ray diffractometer, showed the presence of Caulinite, Quartz, Mica Muscovite and Gibsta, and the first showed higher levels of indication of concentration, plastic characteristic of the sample tested. The ATD and TG curves of the clay mass at the temperature of the firing temperature in the furnace thermostat, 890 ° C, does not identify the presence of thermal transformation peaks. Therefore, through this analysis, it is possible to determine the feasibility of using this soil to produce ceramic blocks.