

A Social-Environmental Way for Production of Building Materials with Solid Residues

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Abstract : Water treatment residues (WTR) are produced during water treatment and have recently been seen as a reusable material. The aim of this research was to perform characterizations of the residue generated in the Meia-Ponte Water Treatment Plant, in Goiania, Brazil, seeking to obtain normative parameters and consider sustainable alternatives for reincorporation of the residues in the productive chain for manufacturing various materials construction. In order to reduce the environmental liabilities generated by sanitation companies and discontinue unsustainable forms of disposal. The analyzes performed: Granulometry, Scanning Electron Microscopy, and X-Ray Diffraction demonstrated the potential application of residues to replace the soil and sand, because it has characteristics compatible with small aggregate and can be used as feed stock for the manufacture of materials as ceramic and soil-cement bricks, mortars, interlocking floors and concrete artifacts.

Keywords : residue, sustainable, water treatment plants, WTR

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