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Light Panels Based on Expanded Perlite, Application as Adsorbers and Insulator against Rapid Evaporation in Subsaharien Countries

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ABSTRACT

Our project concentrates on manufacture of light panels based on available natural materials (expanded perlite, sawdust and refuse of wood, vegetable coal.) mixed with a natural resin not toxic (resin of the pine). The manufacturing process permits to carry out panel ' s low thickness and in various colors which give an aesthetic aspect for waste water treatment plants while preventing the emanation of the nauseous odors coming from the anaerobic metabolism of the organic matter present in the liquid effluents. Panels are also a suitable solution against rapid evaporation of stored rain fed water into lakes and dams. The particularities of these panels are especially: Lower density than water ' s one, provide big capacity of adsorption for the organic gas matter, composite material acts like filter in which organic gases are photo oxidized with dioxide titanium involved in the composite material and these composite materials are insulators of basins against solar heating and consequently fast evaporation.

KEYWORDS

Perlite; Adsorption; Nauseous Odours; Photo-Oxidation; Dioxide Titanium

Cite this paper

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