

Changes in the Properties of Composites Caused by Chemical Treatment of Hemp Hurds

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Abstract : The possibility of using industrial hemp as a source of natural fibers for purpose of construction, mainly for the preparation of lightweight composites based on hemp hurds is described. In this article, an overview of measurement results of important technical parameters (compressive strength, density, thermal conductivity) of composites based on organic filler - chemically modified hemp hurds in three solutions (EDTA, NaOH and Ca(OH)₂) and inorganic binder MgO-cement after 7, 28, 60, 90 and 180 days of hardening is given. The results of long-term water storage of 28 days hardened composites at room temperature were investigated. Changes in the properties of composites caused by chemical treatment of hemp material are discussed.

Keywords : hemp hurds, chemical modification, lightweight composites, testing material properties

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