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Hydration Characteristics of Bentonite Core of Geosynthetic Clay Liner: Key Role of Wet–Dry Cycles and Hydrating Fluids

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ABSTRACT

This paper presents the hydration behavior of two commercially available geosynthetic clay liners (GCLs) under virgin conditions and after exposure to various wet–dry cycles (1st, 3rd, and 5th) hydrated with hydrating solutions of distilled water (DW), 0.0125 M and 0.125 M CaCl_2 solutions. In addition, the hydraulic performance of GCLs was investigated using the cation exchange capacity (CEC), specific surface area (SSA), and swell index values of bentonite of GCLs under virgin conditions and after exposure to various wet–dry cycles hydrated with different

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