

## 造紙工業中多功能的礦土----膨皂土

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### A Multi-functional Mineral for Papermaking---Bentonite

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#### Summary

Bentonite is a mineral with multiple uses in papermaking. The article describes the structural construction and morphology of the mineral, its cationic exchange capacity and the swelling nature of its crystalline lattices. Bentonite is a collective term including in particular, Montmorillonite, and other minerals. Bentonite can be activated through alkaline, acidic or organic polymers activation, the last one imparts hydrophobicity. Bentonite finds application in inkjet printing, pigmentation, mineral tackifier, color developing aid in NCC, stabilization agent for peroxide during bleach and as wet-end additive aiding retention and drainage.

#### 一、緒言

膨皂土(Bentonite)是礦土的一種，1890年由美國地質學家在美國懷俄明州班頓(Benton)附近的泥床發現而得名。它的主要成份同時也是它特性的主要因素就是蒙脫土。而蒙脫土這個名詞則是在法國南部蒙脫地區發現而得名。換句話說，“膨皂土”是此種礦土的集合名詞，它的成份除了蒙脫土外，還有其它礦物，如：石英、雲母、長石…等。膨皂土(或稱蒙脫土)懸浮液之會有特殊的物理及化學表現，主要是因為它具有下列的特性：