

Title (en)

Paper manufacturing process including a step for fixing of mineral fuller on cellulosic fibres

Title (de)

Papierherstellungsverfahren mit Fixierung von Mineralfüllstoff auf cellulosischen Fasern

Title (fr)

Procédé de fabrication d'une feuille de papier comprenant la fixation d'une charge minérale sur des fibres cellulosiques

Publication

EP 1076132 B1 20081126 (FR)

Application

EP 99402058 A 19990813

Priority

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Abstract (en)

[origin: EP1076132A1] To bond a charge of a mineral material to the cellulose fibers in a suspension, the fiber suspension as a papermaking pulp contains at least hydrogen carbonates, carbonates or alkaline metal silicates and/or alkaline earths together with a reagent. The bonding material for attachment to the fibers is added as a mineral hydroxide for precipitation of its carbonates or silicates on to the fibers. The fiber suspension contains sodium hydrogen carbonates and also calcium hydrogen carbonates and/or magnesium hydrogen carbonates. The alkali content is completed at 2-30 degrees F. The fiber suspension contains ions of sodium (N+) at a rate of 20-1000 ppm, or ions of calcium (Ca<2> (+)) at a rate of 5-200 ppm and/or magnesium ions (Mg<2> (+)) at a rate of 5-200 ppm. The hydroxide mineral charge is a calcium hydroxide either as a concentrated milk or in solid form with a particle size of $\leq 6 \mu m$. After the mineral material has precipitated on to the fibers in the suspension, a gas is injected into the suspension containing a carbon dioxide to neutralize and stabilize the pH value of the cellulose fiber suspension. The fiber suspension used is supplied as a pulp of chemically bleached or unbleached fibers, a mechanical pulp, a thermomechanical pulp, or mixtures of pulp types. An Independent claim is included for the production of paper sheets from the pulp of a fiber suspension where mineral materials have been deposited on to the fibers. The wet pulp is fed to a papermaking machine, and the wet sheets are dried.

IPC 8 full level

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CPC (source: EP US)

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Citation (examination)

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