

Title (en)

CELL WALL LOADING OF NEVER-DRIED PULP FIBERS.

Title (de)

ZELLWANDAUFFÜLLUNG VON NIE GETROCKNETEN ZELLSTOFFASERN.

Title (fr)

CHARGEMENT DE PAROIS CELLULAIRES DE FIBRES DE PATE TOUJOURS HUMIDES.

Publication

**EP 0484398 B1 19940921**

Application

**EP 90911505 A 19900724**

Priority

- US 9004138 W 19900724
- US 38499289 A 19890724

Abstract (en)

[origin: WO9101409A1] There is disclosed a filled paper composition comprising intact cellulose fibers and fillers wherein the cellulose fibers are originally never-dried, and wherein the filler material is in an insoluble precipitate formed in situ within the cell wall of the never-dried cellulose pulp fibers. The filled paper composition is characterized by having increased strength characteristics relative to a corresponding conventionally loaded paper composition containing the same amount of the same filler material. There is also disclosed a process for the production of filled paper using never-dried pulp fibers and filler comprising an insoluble precipitate that is precipitated in situ within the cell wall of the fibers. The process first immerses the never-dried pulp fibers in a first solution containing a soluble salt or salts, filters the pulp fibers from the first solution, and reimmerses the never-dried pulp fibers containing the first solution in the pores into a second solution, wherein the second solution comprises soluble salt or salts different from those of the first solution and able to form an insoluble precipitate with the salt or salts of the first solution. The filled, never-dried pulp fibers are filtered and washed and either used to form filled paper products or dried to filled pulp fibers for later use in papermaking.

IPC 1-7

**D21C 9/00**; **D21H 11/16**

IPC 8 full level

**D21H 21/28** (2006.01); **D21C 9/00** (2006.01); **D21H 17/67** (2006.01); **D21H 17/70** (2006.01)

CPC (source: EP)

**D21C 9/004** (2013.01); **D21H 17/70** (2013.01); **D21H 17/675** (2013.01)

Citation (examination)

US 4510020 A 19850409 - GREEN HAROLD V [CA], et al

Designated contracting state (EPC)

AT DE FR GB NL SE

DOCDB simple family (publication)

**WO 9101409 A1 19910207**; AT E111988 T1 19941015; AU 6141790 A 19910222; CA 2063567 A1 19910125; CA 2063567 C 20001226; DE 69012821 D1 19941027; DE 69012821 T2 19950216; EP 0484398 A1 19920513; EP 0484398 B1 19940921; FI 100196 B 19971015; FI 920287 A0 19920123; JP H03152295 A 19910628; NO 177542 B 19950626; NO 177542 C 19951004; NO 920327 D0 19920124; NO 920327 L 19920124

DOCDB simple family (application)

**US 9004138 W 19900724**; AT 90911505 T 19900724; AU 6141790 A 19900724; CA 2063567 A 19900724; DE 69012821 T 19900724; EP 90911505 A 19900724; FI 920287 A 19920123; JP 19604090 A 19900724; NO 920327 A 19920124