

Title (en)

Paper strengthening agent and paper strengthening method

Title (de)

Papierfestigungsmittel und Verfahren zur Festigung von Papier

Title (fr)

Agent de renforcement pour papier et procédé de renforcement de papier

Publication

EP 0953679 A1 19991103 (EN)

Application

EP 98111753 A 19980625

Priority

- JP 12664398 A 19980422
- JP 17532898 A 19980609

Abstract (en)

There is provided a paper strengthening agent comprising a polymer dispersion manufactured by polymerizing a monomer containing (meth)acrylic acid in an aqueous solution and precipitating the produced polymer as fine particles, and which is added to a paper layer after a paper layer is formed, wherein (1) the concentration of the (meth)acrylic acid (co)polymer in said polymer dispersion is at least 5 wt%, (2) the average particle diameter of the (meth)acrylic acid (co)polymer particles in said polymer dispersion is 1 to 100 μm , (3) the viscosity of said polymer dispersion is 30 to 5000 mPa.s immediately after and one month after the production, (4) the polymer particles can be recognized when said polymer dispersion is diluted 10 times with distilled water and the diluted dispersion is magnified by a factor of 400 and observed with a microscope, and (5) when the pH of said diluted dispersion is adjusted to 7.0 by adding alkali, said polymer particles are dissolved to form an aqueous solution. The paper strengthening agent prepared in this manner allows to obtain paper having increased paper strength by diluting with water, coating or impregnating onto a dry paper surface or wet paper surface, and drying the treated paper.

IPC 1-7

D21H 17/43; **D21H 23/22**

IPC 8 full level

D21H 21/20 (2006.01); **D21H 17/37** (2006.01); **D21H 19/82** (2006.01); **D21H 21/18** (2006.01); **D21H 23/26** (2006.01); **D21H 17/43** (2006.01); **D21H 21/52** (2006.01)

CPC (source: EP)

D21H 21/18 (2013.01); **D21H 17/43** (2013.01); **D21H 21/52** (2013.01)

Citation (search report)

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Designated contracting state (EPC)

DE ES FI FR GB IT NL SE

DOCDB simple family (publication)

EP 0953679 A1 19991103; **EP 0953679 B1 20020911**; DE 69807843 D1 20021017; DE 69807843 T2 20030528; ES 2185086 T3 20030416; NO 323070 B1 20061227; NO 983091 D0 19980703; NO 983091 L 19991025; RU 2146317 C1 20000310; TW I224641 B 20041201

DOCDB simple family (application)

EP 98111753 A 19980625; DE 69807843 T 19980625; ES 98111753 T 19980625; NO 983091 A 19980703; RU 98113153 A 19980701; TW 88118763 A 19991029