

Title (en)

Calender for treating a paper web and process for its use

Title (de)

Kalender für die Behandlung einer Papierbahn und Verfahren zu dessen Betrieb

Title (fr)

Calandre pour le traitement d'une bande de papier et méthode d'utilisation

Publication

**EP 0732444 B1 19981021 (DE)**

Application

**EP 96103276 A 19960304**

Priority

DE 19508349 A 19950309

Abstract (en)

[origin: US5671665A] A calender for treating a paper web includes a roller stack being loaded with a load on one end. The calender has at least two hard rollers each having a substantially smooth outer surface. The at least two hard rollers each have a device for heating a surface of the roller to a temperature of at least 100 DEG C. The calender also includes at least two soft rollers, wherein each of the at least two soft rollers is disposed adjacent to at least one of the at least two hard rollers to form a working nip therebetween. At least one working nip has a dwell time of the paper web passing through the working nip of at least 0.1 ms. The load on the rollers produces an average compressive stress in the at least one working nip of at least 42 N/mm<sup>2</sup>. An arithmetic mean of the numerical value of the surface temperature T, the dwell time t and the compressive stress p in all of the working nips satisfies the following relationship: a target value  $Z_g = 1.378 - 0.00356 \times T - (0.00825 - 5.12 \times 10^{-5} T) p - [0.039 + (0.188 - 0.00112 T) p x e^{-0.093 p}] t x e^{-0.42 t} = 0.8$  to 0.9.

IPC 1-7

**D21G 1/00**; **D21G 1/02**

IPC 8 full level

**D21G 1/00** (2006.01); **D21G 1/02** (2006.01)

CPC (source: EP KR US)

**D21G 1/00** (2013.01 - EP KR US); **D21G 1/02** (2013.01 - KR); **D21G 1/0233** (2013.01 - EP US)

Cited by

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DOCDB simple family (publication)

**US 5671665 A 19970930**; AT E172508 T1 19981115; CA 2169977 A1 19960910; CA 2169977 C 19981201; DE 19508349 A1 19960912; DE 19508349 C2 20030403; DE 59600688 D1 19981126; EA 000187 B1 19981224; EA 199600008 A2 19961001; EA 199600008 A3 19961230; EP 0732444 A1 19960918; EP 0732444 B1 19981021; JP 2612678 B2 19970521; JP H08246381 A 19960924; KR 0160397 B1 19990115; KR 960034575 A 19961024; NO 307577 B1 20000425; NO 960975 D0 19960308; NO 960975 L 19960910

DOCDB simple family (application)

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