

Title (en)

METHOD, PAPER MACHINE AND BASE PAPER FOR THE MANUFACTURE OF LWC PRINTING PAPER COATED ONCE

Title (de)

VERFAHREN, PAPIERMASCHINE UND ROHPAPIER ZUR HERSTELLUNG EINES EINFACH BESTRICHENEN PAPIERS MIT LWC QUALITÄT

Title (fr)

PROCEDE, MACHINE A PAPIER ET PAPIER DE BASE POUR LA FABRICATION DE PAPIER IMPRESSION COUCHE LEGER (LWC) RECOUVERT UNE SEULE FOIS

Publication

EP 1417377 B1 20071107 (EN)

Application

EP 02751202 A 20020617

Priority

- FI 0200528 W 20020617
- FI 20011291 A 20010618

Abstract (en)

[origin: WO02103109A1] A method, a paper machine and a base paper for the manufacture of LWC printing paper which is coated once. The paper machine comprises a headbox (100), a gap former (200), a press section (300) which comprises at least one extended nip press, a pre-dryer section (400) in which a web (W) is dried applying at least cylinder drying (R1-R7), a pre-calender (500) in which the web (W) is pre-calendered, at least one portion which is formed of a coating station (600) and an after-dryer section (700) and in which the web (W) is coated on both sides applying a film coating method or a non-contact coating method and dried applying at least contact-free drying (710), an end calender (800) in which the web (W) is calendered, and a reel-up (900) in which the web (W) is reeled. The pre-calender (500) is a calender which is provided with at least one nip (NE1, NE2) and in which both surfaces of the web are in contact with a calendering backup surface having a surface temperature of at least 200 DEG C, advantageously at least 250 DEG C, the total length of the nip or nips of the pre-calender is in a range of 15-600 mm, advantageously in a range of 30-600 mm, the linear load of each nip is in a range of 50-500 kN/m, advantageously in a range of 100-400 kN/m, and the moisture content of the web before the first nip of the pre-calender (500) is in a range of 5-20 %, advantageously in a range of 6-15 %.

IPC 8 full level

D21F 9/00 (2006.01); **D21H 23/30** (2006.01); **D21F 3/02** (2006.01); **D21F 9/02** (2006.01); **D21F 11/00** (2006.01); **D21G 1/00** (2006.01); **D21H 19/00** (2006.01); **D21H 23/22** (2006.01); **D21H 25/14** (2006.01)

CPC (source: EP US)

D21F 3/045 (2013.01 - EP US); **D21F 9/003** (2013.01 - EP US); **D21G 1/00** (2013.01 - EP US); **D21G 1/006** (2013.01 - EP US); **D21H 25/14** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

WO 02103109 A1 20021227; AT E377669 T1 20071115; CA 2467100 A1 20021227; CN 100343447 C 20071017; CN 1703552 A 20051130; DE 60223385 D1 20071220; DE 60223385 T2 20080828; EP 1417377 A1 20040512; EP 1417377 B1 20071107; FI 20011291 A0 20010618; FI 20011291 A 20021219; JP 2004530063 A 20040930; US 2005011624 A1 20050120

DOCDB simple family (application)

FI 0200528 W 20020617; AT 02751202 T 20020617; CA 2467100 A 20020617; CN 02812227 A 20020617; DE 60223385 T 20020617; EP 02751202 A 20020617; FI 20011291 A 20010618; JP 2003505413 A 20020617; US 48113104 A 20040806