

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
4 December 2008 (04.12.2008)

PCT

(10) International Publication Number
WO 2008/146158 A8

(51) International Patent Classification:

A24D 1/02 (2006.01) B41M 1/10 (2006.01)
B41M 3/00 (2006.01)

(21) International Application Number:

PCT/IB2008/001839

(22) International Filing Date: 22 May 2008 (22.05.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/924,676 25 May 2007 (25.05.2007) US

(71) Applicant (for all designated States except US): **PHILIP MORRIS PRODUCTS S.A.** [CH/CH]; Quai Jeanrenaud 3, CH-2000 Neuchâtel (CH).(72) Inventors: **LI, Ping**; 5525 Summer Creek Way, Glen Allen, Virginia 23059 (US). **GARG, Rajesh K.**; 3216 Center Ridge Drive, Richmond, Virginia 23233 (US). **BAREN, Randall E.**; 11412 Sutton Park Court, Glen Allen, Virginia 23059 (US). **PHAN, Tony A.**; 9020 Cardiff Road, Richmond, Virginia 23236 (US). **SHERWOOD, Timothy S.**; 11506 Courthouse Acres Drive, Midlothian, Virginia 23113 (US). **MISER, Donald E.**; 12750 Second Branch Road, Chesterfield, Virginia 23838 (US).(74) Agent: **MARLOW, Nicholas, Simon**; Reddie & Grose, 16 Theobalds Road, London WC1X 8PL (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

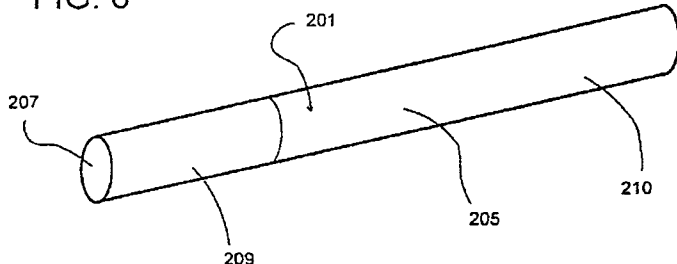
Published:

— with international search report

(88) Date of publication of the international search report:
19 February 2009(48) Date of publication of this corrected version:
7 May 2009(15) Information about Correction:
see Notice of 7 May 2009

(54) Title: PRINTING PROCESS FOR PATTERNED WRAPPER PAPER

FIG. 6



(57) Abstract: A process for making patterned wrapper paper applies an aqueous solution of oxidized starch material to a base web (10) of paper. The aqueous starch solution has a surface tension of at least about 65 dynes/centimeter, a pH in the range of about 6 to about 6.5, a room temperature viscosity no greater than about 50 centipoises, and is prepared from particles sized in the range of about 4 to about 40 microns when dry and about 90% of which are sized in the range of about 10 to about 100 microns

when wet. The starch particles are capable of forming a solution with about 20% to about 24% oxidized starch content. Any suitable printing technique can be used to apply the aqueous solution. The pattern of the wrapper may comprise bands (34), stripes (36), two-dimensional arrays, and the like. Moreover, the pattern can be applied in one or more layers (40,42). The invention includes a cigarette having the wrapper.