

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
4 December 2003 (04.12.2003)

PCT

(10) International Publication Number
WO 03/099466 A1

(51) International Patent Classification⁷: **B05D 5/10**,
7/04, C09J 7/02, C08G 65/00

(21) International Application Number: PCT/US03/15576

(22) International Filing Date: 15 May 2003 (15.05.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/151,562 20 May 2002 (20.05.2002) US

(71) Applicant: **THE PROCTER & GAMBLE COMPANY**
[US/US]; One Procter & Gamble Plaza, Cincinnati, OH
45202 (US).

(72) Inventors: **LEHRTER, Mary, Ruth**; 67 Hillsdale Av-
enue, Cincinnati, OH 45216 (US). **BARNHOLTZ, Steven,**
Lee; 5835 Olympia Fields Court, West Chester, OH 45069
(US). **SINGER, James, Michael**; 6538 Willow Bend
Drive, Liberty Township, OH 45011 (US). **BOUTILIER,**
Glenn, David; 10566 Stablehand Drive, Cincinnati, OH
45242 (US). **WNUK, Andrew, Julian**; 450 Hidden Valley

Lane, Wyoming, OH 45215 (US). **ZIMMERMAN, Dean,**
Arthur; 7738 Cedar Creek Drive, West Chester, OH
45069 (US). **LORENZ, Timothy, Jude**; 5846 Valleyway
Court, Cincinnati, OH 45247 (US).

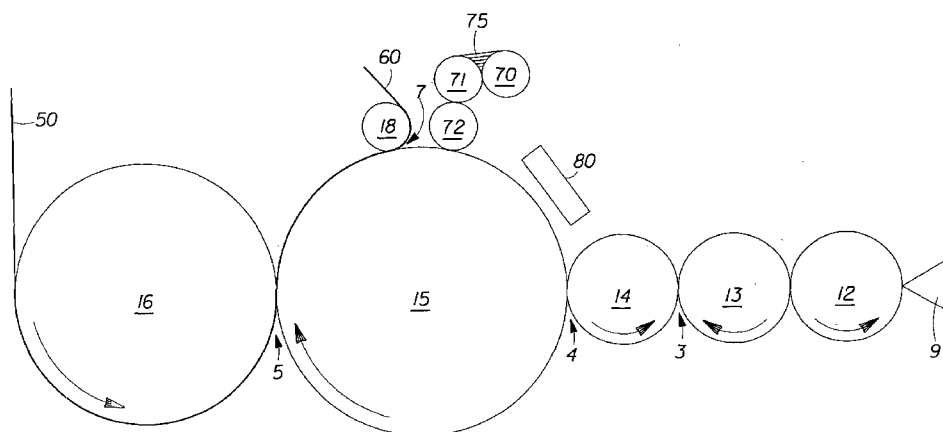
(74) Agents: **REED, T., David** et al.; The Procter & Gamble
Company, 6110 Center Hill Road, Cincinnati, OH 45224
(US).

(81) Designated States (*national*): AE, AG, AL, AM, AT (util-
ity model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (util-
ity model), DE, DK (utility model), DK, DM, DZ, EC, EE
(utility model), EE, ES, FI (utility model), FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,
MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU,
SC, SD, SE, SG, SK (utility model), SK, SL, TJ, TM, TN,
TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,

[Continued on next page]

(54) Title: IMPROVED HIGH SPEED EMBOSSED AND ADHESIVE PRINTING PROCESS



(57) Abstract: The present invention provides a process comprising the steps of (a) applying less than about 0.1 grams per square meter (gsm) of a release agent to a transfer surface, wherein the release agent is selected such that a test sample of the release agent having a concentration at or above its critical surface tension concentration, has a surface tension of less than about 50 dyne/cm or forms a contact angle with the material of the transfer surface of less than about 120° (b) applying an adhesive to the transfer surface; and (c) transferring the adhesive from the transfer surface to a material web. Preferred embodiments are provided where the transfer surface is metals, polymers, elastomers, ceramics, wood, or combinations thereof and the release agent has the formula : X-CF₂O-(C₂F₄O)_p-(CF₂O)_q-CF₂-X. Additional embodiments are provided to continuous and intermittent processes.



WO 03/099466 A1



SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*