

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
30 March 2006 (30.03.2006)

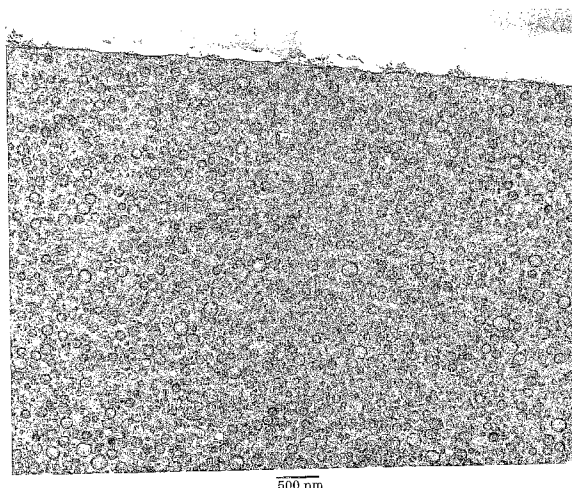
PCT

(10) International Publication Number
WO 2006/033449 A1

- (51) International Patent Classification⁷: **C08F 255/02**, (74) Agent: **NOGAWA, Shintaro**; Nogawa Patent Office, Minamimorimachi Park Bldg., 1-3, Nishitenma 5-chome, Kita-ku, Osaka-shi, Osaka 5300047 (JP).
C08J 9/18, 9/232
- (21) International Application Number: PCT/JP2005/017673 (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 20 September 2005 (20.09.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 2004-275278 22 September 2004 (22.09.2004) JP
- (71) Applicant (for all designated States except US): **SEKISUI PLASTICS CO., LTD.** [JP/JP]; 4-4, Nishitenma 2-chome, Kita-ku, Osaka-shi, Osaka, 5300047 (JP).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **MATSUMURA, Hideyasu** [JP/JP]; 4-1-14-203, Moriyama, Moriyama-shi, Shiga, 5240022 (JP). **MATSUGASHITA, Tatsuya** [JP/JP]; 3-4-10-14, Sakyo, Nara-shi, Nara, 6310801 (JP).
- (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, HU, IE, IS, IT, LT, LU, LV, MC, NL, 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

[Continued on next page]

(54) Title: EXPANDED MOLDED ARTICLE HAVING VOIDS



(57) Abstract: An expanded molded article having a void percentage of 5 to 50 %, the molded article comprising 50 to 800 parts by weight of styrene-based resin relative to 100 parts by weight of non-crosslinked linear low-density polyethylene-based resin which can be obtained by using a metallocene catalyst, wherein the molded article is obtained by impregnating styrene-modified linear low-density polyethylene-based resin beads with a volatile blowing agent to provide expandable beads, pre-expanding the expandable beads and then subjecting the obtained pre-expanded beads to expansion molding, the styrene-modified linear low-density polyethylene-based resin beads each have the styrene-based resin dispersed in the form of particles, and a diameter of particle is 0.8 μm or smaller in a surface region within at least 5 μm from the bead surface and in a center region within a 5 μm radius from the bead center.



WO 2006/033449 A1



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.