(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
4 June 2009 (04.06.2009)

PCT

(10) International Publication Number
WO 2009/070504 A3

(51) International Patent Classification:
C09J 7/02 (2006.01) *C09J 133/08* (2006.01)

(21) International Application Number:
PCT/US2008/084354

(22) International Filing Date:
21 November 2008 (21.11.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10-2007-0120938
26 November 2007 (26.11.2007) KR

(71) Applicant *(for all designated States except US)*: **3M INNOVATIVE PROPERTIES COMPANY** [US/US]; 3M Center, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **RYU, Jung-hyun** [KR/KR]; Sungwon-Santevill APT 201-303, Eonnam-dong, Giheung-gu, Gyeonggi-do, Yong-in City 446-792 (KR). **CHOI, Jeongwan** [KR/KR]; 19th Floor, Daehan Investment and Securities Building, 27-3, Yeouido-dong, Yeongdeungpo-gu, Seoul 150-705 (KR). **PARK, Jin-woo** [KR/KR]; 19th Floor, Daehan Investment and Securities Building, 27-3, Yeouido-dong, Yeongdeungpo-gu, Seoul 150-705 (KR). **YANG, Shin-ae** [KR/KR]; 19th Floor, Daehan Investment and Securities Building, 27-3, Yeouido-dong, Yeongdeungpo-gu, Seoul 150-705 (KR).

(74) Agents: **HARTS, Dean, M.** et al.; 3M Center, Office of Intellectual Property Counsel, Post Office Box 33427, Saint Paul, Minnesota 55133-3427 (US).

(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, 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, ST, 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,

[Continued on next page]

(54) Title: ADHESIVE SHEET AND METHOD FOR MANUFACTURING SAME

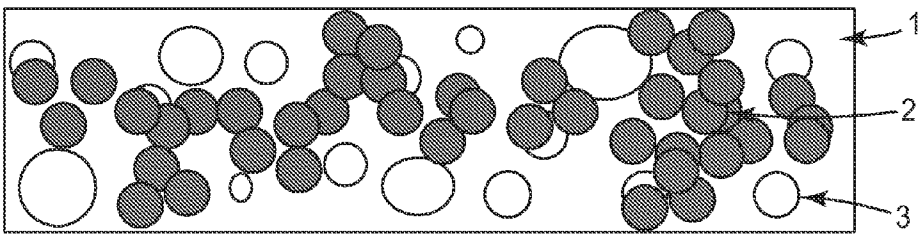


FIG. 2

(57) Abstract: Disclosed is a method for manufacturing an adhesive sheet, including the steps of: (i) forming polymer syrup using monomer for adhesive polymer resin; (ii) injecting gas into the polymer syrup to form bubbles; (iii) forming an adhesive mixture by adding a conductive filler to the polymer syrup having the bubbles and mixing the conductive filler with the polymer syrup; (iv) manufacturing the mixture in a form of a sheet; and (v) irradiating light onto at least two surfaces of the sheet to photopolymerize the adhesive mixture. Gas is injected into polymer syrup before the conductive filler is added to the polymer syrup to form bubbles, thereby obtaining an adhesive sheet capable of shielding and/or absorbing an electromagnetic radiation with dimensional stability and adhesive force superior to that of comparative adhesive sheets.

WO 2009/070504 A3

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*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

(88) Date of publication of the international search report:
23 July 2009