

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
14 July 2011 (14.07.2011)

PCT

(10) International Publication Number
WO 2011/085375 A1

(51) International Patent Classification:

C08J 5/18 (2006.01) **C08F 10/02** (2006.01)
C08L 23/36 (2006.01) **C08J 3/22** (2006.01)
C08L 23/04 (2006.01) **C08L 23/08** (2006.01)
C08F 8/30 (2006.01) **C08L 23/06** (2006.01)
C08F 8/00 (2006.01) **C08K 5/3435** (2006.01)
C08K 5/32 (2006.01) **C08F 210/16** (2006.01)

(21) International Application Number:

PCT/US2011/020846

(22) International Filing Date:

11 January 2011 (11.01.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

12/685,148 11 January 2010 (11.01.2010) US

(71) Applicants (for all designated States except US): **DOW GLOBAL TECHNOLOGIES LLC** [US/US]; P.O. Box 1967, 2040 Dow Center, Midland, MI 48674 (US). **DOW BRAZIL S.A.** [BR/BR]; Avenida das Nacoes Unidas, 14171, Santo Amaro, Cep. 04794-000 Sao Paulo - Sp (BR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KARJALA, Teresa** [US/US]; 56 Mandevilla Court, Lake Jackson, TX 77566 (US). **MAZZOLA, Nicolas** [BR/BR]; Rua Aurora Germano de Lemos 333 Ap94, 13209460 Jundiai (BR). **DEMIRORS, Mehmet** [NL/US]; 2319 Bending Spring Drive, Pearland, TX 77584 (US). **GOMES, Jorge** [BR/BR]; Rua Gil Eanes 315 AP73, 04601040 Sao Paulo

(BR). **TERRASA, Michael** [US/US]; 117 Huckleberry, Lake Jackson, TX 77566 (US).

(74) Agent: **HOPPE, James**; Dow Global Technologies LLC, 2040 Dow Center, Midland, MI 48674 (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, CL, 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, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(54) Title: POLYETHYLENE WITH HIGH MELT STRENGTH FOR USE IN FILMS

(57) Abstract: The present invention is a method for producing a film particularly well suited for shrink film applications, said method comprising the steps of selecting a target polyethylene resin and then increasing the melt strength of the polyethylene resin by reacting the polyethylene resin with an alkoxy amine derivative, and then forming a film from the reacted target polyethylene.



WO 2011/085375 A1