

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

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
2 September 2010 (02.09.2010)

PCT

(10) International Publication Number
WO 2010/098827 A1

(51) International Patent Classification:

C08F 10/02 (2006.01) *C08F 4/02* (2006.01)
C08F 4/24 (2006.01) *C08J 5/18* (2006.01)

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(21) International Application Number:

PCT/US2010/000508

(22) International Filing Date:

23 February 2010 (23.02.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

12/394,651 27 February 2009 (27.02.2009) US
12/394,636 27 February 2009 (27.02.2009) US

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(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, 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, MK, MT, NL, NO, PL, PT, RO, 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))

(54) Title: POLYETHYLENE FILM HAVING IMPROVED BARRIER PROPERTIES AND METHODS OF MAKING SAME

(57) Abstract: A polymeric resin having a density of greater than 0.960 g/cc, a melt index of from 1.3 g/10 min. to 2.8 g/10 min., a zero shear viscosity of from 1×10^4 Pa*s to 1×10^5 Pa*s, a recoverable shear parameter of from 220 to 370, and a CY-a parameter of from 0.155 to 0.200. A polymeric resin having an initial tension defined by the equation $IT > -1.67*(MI)+b$ where b is 5.17 and a percent decrease in the extrusion pressure of the resin of 30% when compared to polymer resin of similar melt index prepared with a catalyst that has not undergone an activation comprising an oxidation, reduction, oxidation sequence wherein the resin when formed into a film has a moisture vapor transmission rate of from 0.21 g.mil/100 in²/day to 0.33 g.mil/100 in²/day.



WO 2010/098827 A1