



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

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| <b>(51) International Patent Classification <sup>6</sup>:</b><br><b>C08K 3/00, C08L 25/00, 23/02, C08J 9/00</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>A1</b> | <b>(11) International Publication Number:</b> <b>WO 99/20685</b><br><b>(43) International Publication Date:</b> 29 April 1999 (29.04.99)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>(21) International Application Number:</b> PCT/US98/21699<br><b>(22) International Filing Date:</b> 15 October 1998 (15.10.98)<br><b>(30) Priority Data:</b><br>60/062,305 17 October 1997 (17.10.97) US<br><b>(71) Applicant (for all designated States except US):</b> THE DOW CHEMICAL COMPANY [US/US]; 2030 Dow Center, Midland, MI 48674 (US).<br><b>(72) Inventors; and</b><br><b>(75) Inventors/Applicants (for US only):</b> BABINEC, Susan, J. [US/US]; 1110 West Park Drive, Midland, MI 48640 (US). BLANCHARD, Mechelle, A. [US/US]; 2500 Abbott Road Number M11, Midland, MI 48642 (US). GUEST, Martin, J. [GB/US]; 106 Greenbriar, Lake Jackson, TX 77566 (US). WALTHER, Brian, W. [US/US]; 630 Highway 332, Lake Jackson, TX 77566 (US). CHAUDHARY, Bharat, I. [IN/US]; 3419 Woodbine Place, Pearland, TX 77584 (US). BARRY, Russell, P. [GB/DE]; Im Kleinfeld 38, D-77855 Gamshurst (DE).<br><b>(74) Agent:</b> SPENCER, Lee; Patent Dept., B-1211, 2301 Brazosport Boulevard, Freeport, TX 77541 (US).                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           | <b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).<br><b>Published</b><br><i>With international search report.</i><br><i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> |
| <b>(54) Title:</b> COMPOSITIONS OF INTERPOLYMERS OF ALPHA-OLEFIN MONOMERS WITH ONE OR MORE VINYL OR VINYLIDENE AROMATIC MONOMERS<br><b>(57) Abstract</b><br><p>A blend of polymeric materials comprising: (A) from 1 to 99.99 weight percent based on the combined weights of Components A, B and C of at least one substantially random interpolpolymer; and wherein said interpolpolymer: (1) contains from 0.5 to 65 mole percent of polymer units derived from: (a) at least one vinyl or vinylidene aromatic monomer, or (b) at least one hindered aliphatic or cycloaliphatic vinyl or vinylidene monomer, or (c) a combination of at least one vinyl or vinylidene aromatic monomer and at least one hindered aliphatic or cycloaliphatic vinyl or vinylidene monomer; (2) contains from 35 to 99.5 mole percent of polymer units derived from at least one aliphatic <math>\alpha</math>-olefin having from 2 to 20 carbon atoms; (3) has a molecular weight (<math>M_n</math>) greater than 1,000; (4) has a melt index (<math>I_2</math>) from 0.01 to 1,000; (5) has a molecular weight distribution (<math>M_w/M_n</math>) from 1.5 to 20; and (B) from 99 to 0.01 weight percent based on the combined weights of Components A, B, and C of one or more conductive additives and/or one or more additives with high magnetic permeability; and (C) from 0 to 98.99 weight percent based on the combined weights of Components A, B, and C of one or more polymers other than A.</p> |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |