

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 September 2004 (30.09.2004)

PCT

(10) International Publication Number
WO 2004/083297 A3

(51) International Patent Classification⁷: **C08K 3/34**
(21) International Application Number:
PCT/US2004/008126

(22) International Filing Date: 17 March 2004 (17.03.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/455,674 18 March 2003 (18.03.2003) US

(71) Applicant (for all designated States except US): **INVISTA TECHNOLOGIES S.à.r.l.** [US/US]; Intellectual Property Record Center, 4417 Lancaster Pike, CRP 722/1032, Wilmington, DE 19805 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SANDUSKY, Donald, Allan** [US/US]; 2613 Salem Drive, Wilmington, DE 19808 (US). **MCINNIS, Edwin, L.** [US/US]; 34 Spring Hill Drive, Lincoln University, PA 19352 (US).

(74) Agent: **KRUKIEL, Charles, E.**; Invista Technologies S.à.r.l., Intellectual Property Record Center, 4417 Lancaster Pike, CRP 722/1032, Wilmington, DE 19805 (US).

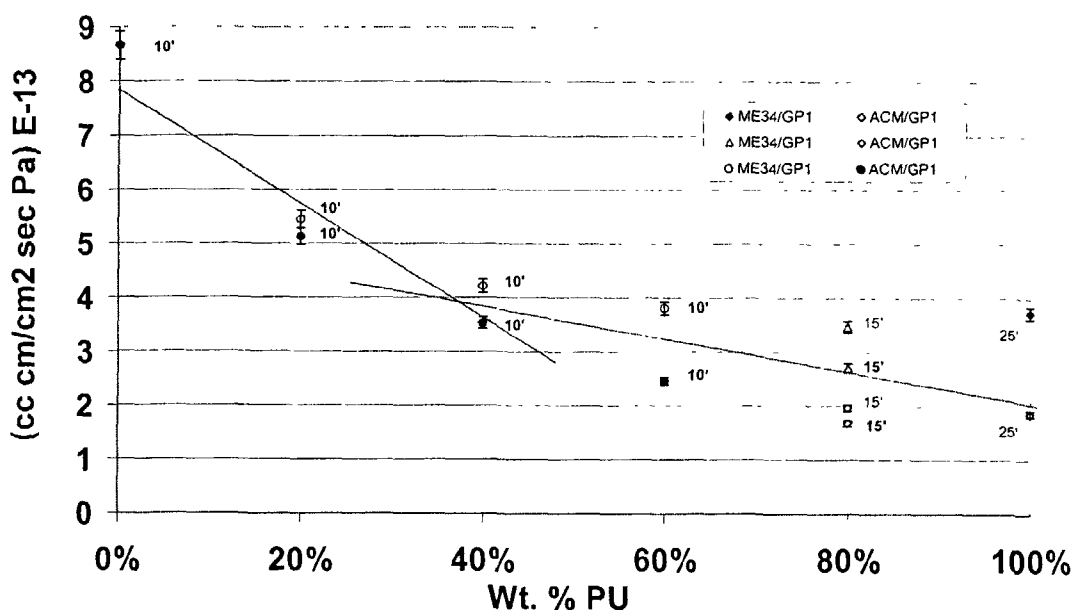
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, 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, IT, LU, 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).

[Continued on next page]

(54) Title: ALLOY BLENDS OF POLYURETHANE AND RUBBER

100% O₂ Permeability (25°C, 35% RH)



(57) Abstract: The present invention relates to a rubber formulation suitable for making barrier articles, such as inflatable sports balls or bicycle tubes, that resist the passage of gases, such as air, particularly as applicable to tennis balls, and more particularly to the rubber formulation which contains substantially amorphous, millable polyurethane alloyed with natural and/or synthetic rubbers.

WO 2004/083297 A3



Published:

— with international search report

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.

(88) Date of publication of the international search report:

31 March 2005