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(21) International Application Number: PCT/US99/11729 (22) International Filing Date: 25 May 1999 (25.05.99) (30) Priority Data: 09/121,613 20 July 1998 (20.07.98) US (71) Applicant: HERCULES INCORPORATED [US/US]; Intellectual Property Section, Hercules Plaza, 1313 N. Market Street, Wilmington, DE 19894-0001 (US). (72) Inventors: ANTTILA, Arthur, L.; 12 Longspur Drive, Wilmington, DE 19808 (US). CHU, Sung, G.; 8 Live Oak, South Wood, Hockessin, DE 19707 (US). PODLAS, Thomas, J.; 9 Paddington Court, Hockessin, DE 19707 (US). YOUNG, Teng-Shau; 203 Charleston Drive, Wilmington, DE 19808 (US). (74) Agent: EDWARDS, David; Hercules Incorporated, Intellectual Property Section, Hercules Plaza, 1313 N. Market Street, Wilmington, DE 19894-0001 (US).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, 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, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, 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). Published <i>With international search report.</i>
(54) Title: ADDITIVE FOR CONTROLLING FLEXURAL BOND STRENGTH, AIR ENTRAINMENT AND WORKABILITY OF MORTAR CEMENT (57) Abstract A mortar cement composition is composed of a cement or ground portland cement clinker, ground limestone and/or lime, sand, a sufficient amount of water to render the composition flowable, and at least one water-soluble polymer present in the amount having a lower limit of about 0.001 wt.% and an upper limit of about 0.04 wt.% based on total dry weight of the ingredients, with the proviso that the extent of adsorption of the polymer onto the cement is less than 50 %, and wherein the resulting mortar has 8-16 % air content and greater than 70 psi flexural bond strength. This mortar cement composition is for use in building structures in all seismic zones.		