

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
14 August 2003 (14.08.2003)

PCT

(10) International Publication Number  
**WO 03/066737 A1**

(51) International Patent Classification<sup>7</sup>: **C08L 83/10**

(21) International Application Number: PCT/US03/02786

(22) International Filing Date: 29 January 2003 (29.01.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10/062,243 1 February 2002 (01.02.2002) US

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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, 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, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR).

**Published:**

- with international search report
- with amended claims

*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.*

(54) Title: ELASTOMER-MODIFIED EPOXY SILOXANE COMPOSITIONS

(57) Abstract: Elastomer-modified Epoxy-polysiloxane compositions of this invention are prepared by combining a silicone intermediate, with an epoxy resin, an elastomeric resinous intermediate, a polyfunctional amine, an optional organometallic catalyst, and optional fillers, pigments, and processing agents. The composition is prepared using a sufficient amount of water to promote hydrolysis of the polysiloxane and the polycondensation of the silanols produced by such hydrolysis. In its cured form, the epoxy-polysiloxane dispersed arrangement cross-linked with a wherein either or both of the epoxy and/or polysiloxane polymers are elastomer modified to provide coatings and floorings having significantly improved properties of impact resistance, flexibility, crack resistance, and abrasion resistance with compared to conventional epoxy systems. composition exists as a uniformly of linear epoxy chain fragments that are continuous polysiloxane polymer chain,



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