

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

(19) World Intellectual Property Organization
International Bureau



162162

(43) International Publication Date
25 May 2001 (25.05.2001)

PCT

(10) International Publication Number
WO 01/36527 A1

- (51) International Patent Classification⁷: C08K 5/523, 7/14, 9/04
- (21) International Application Number: PCT/US00/27143
- (22) International Filing Date: 2 October 2000 (02.10.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/439,387 15 November 1999 (15.11.1999) US
- (71) Applicant: GENERAL ELECTRIC COMPANY
[US/US]; 1 River Road, Schenectady, NY 12345 (US).
- (72) Inventor: PATEL, Nirajkumar; 608 Astor Court, Delmar, NY 12054 (US).
- (74) Agents: SNYDER, Bernard et al.; General Electric Company, 3135 Easton Turnpike W3C, Fairfield, CT 06431 (US).
- (81) Designated States (*national*): 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, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, 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:**
— 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.*



G00002

WO 01/36527 A1

(54) Title: FLAME-RETARDED POLYPHENYLENE ETHER COMPOSITION AND METHOD OF MAKING SAME

(57) Abstract: Polyphenylene ether (PPE) compositions with good fire and flame-retardant characteristics utilize lower levels of organophosphate fire-retardant, and therefore do not suffer from the drawbacks of previously known fire- and flame-retardant PPE compositions. The compositions include (a) a polymer component containing at least 50 % of a polyphenylene ether; (b) glass reinforcing fibers in an amount sufficient to increase the modulus and strength of the polymer component; (c) a fire retardant component which is preferably an organophosphate fire retardant; (d) an organoclay component in an amount effective to enhance the flame-retardant characteristics of the composition; and (e) a mineral component. Other conventional additives utilized in formulation of PPE may be included. The composition is made by mixing the ingredients and compounding into a composition which is suitable for injection molding. This composition can be used in the manufacture of injection molded articles such as electronic components, including television internals such as deflection yokes; printer chassis and plastic pallets.