

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
3 January 2003 (03.01.2003)

PCT

(10) International Publication Number  
**WO 03/000785 A1**

(51) International Patent Classification<sup>7</sup>: **C08K 5/523**,  
5/49, C08L 71/12, 51/04, 69/00, C08J 9/18, C08L 23/06,  
25/04, 67/00, 71/00, C08K 5/01, 5/12, C08L 93/00, 93/04

(21) International Application Number: PCT/US02/01485

(22) International Filing Date: 18 January 2002 (18.01.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
09/681,605 7 May 2001 (07.05.2001) US

(71) Applicant: **GENERAL ELECTRIC COMPANY**  
[US/US]; One River Road, Schenectady, NY 12345 (US).

(72) Inventors: **LANDA, Adrie**; Pater Dehonlaan 144,  
NL-4615 DB Bergen op Zoom (NL). **KEULEN, Jan**;  
Sparrenalaan 4, NL-4641 GA Ossendrecht (NL).

(74) Agents: **HARRINGTON, Mark, F.**; Harrington & Smith,  
LLP, 1809 Black Rock Turnpike, Fairfield, CT 06432-3504  
et al. (US).

(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, PL, PT, RO, RU, SD, SE, SG, SI, SK,  
SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,  
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, 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, TR), OAPI patent  
(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: FLAME RETARDANT EXPANDABLE POLY(ARYLENE ETHER)/POLYSTYRENE COMPOSITIONS AND  
PREPARATION THEREOF

(57) Abstract: A non-halogenated, fire retardant, expandable poly(arylene ether)/polystyrene blends is produced by the method comprising, in a first step, forming a fire retardant mixture comprising a non-halogenated fire retardant, poly(arylene ether) resin and polystyrene resin by intimately mixing in melt; and in a second step, forming the non-halogenated, fire retardant, expandable poly(arylene ether)/polystyrene blend by intimately mixing in melt the fire retardant mixture with a blowing agent.



**WO 03/000785 A1**