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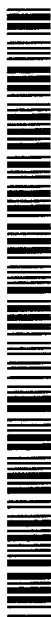


(43) International Publication Date
14 December 2000 (14.12.2000)

PCT

(10) International Publication Number
WO 00/75791 A3

- (51) International Patent Classification⁷: C08F 293/00, C08L 53/00, C09D 153/00
- (21) International Application Number: PCT/US00/15202
- (22) International Filing Date: 2 June 2000 (02.06.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/325,226 3 June 1999 (03.06.1999) US
09/325,227 3 June 1999 (03.06.1999) US
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- (81) Designated States (*national*): AE, AL, AM, AT, AU, AZ,
BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK,
DM, 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, 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, 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.
— Before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments.
- (88) Date of publication of the international search report:
1 February 2001
- 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.*



WO 00/75791 A3

(54) Title: BLOCK COPOLYMERS PREPARED BY CONTROLLED RADICAL POLYMERIZATION AND THEIR USE AS FLOW MODIFIERS

(57) Abstract: Provided are block copolymers containing at least two blocks are provided and comprise: (a) a first block containing residues of at least one first ethylenically unsaturated radically polymerizable monomer that is free of hydroxy functionality, e.g., 2-ethylhexyl methacrylate, and, optionally, a minor amount of at least one hydroxy functional ethylenically unsaturated radically polymerizable monomer, e.g., hydroxypropyl methacrylate; and (b) a second block containing residues of at least one second ethylenically unsaturated radically polymerizable monomer that is free of hydroxy functionality, e.g., iso-butyl methacrylate, and, optionally, a minor amount of at least one hydroxy functional ethylenically unsaturated radically polymerizable monomer. The calculated T_g of the second monomer of the block copolymer is at least 20 °C greater than the calculated T_g of the first monomer. Also provided are thermosetting coating compositions that contain the block copolymers as flow additives.

INTERNATIONAL SEARCH REPORT

Intern. Application No

PCT/US 00/15202

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 C08F293/00 C08L53/00 C09D153/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 C08F C08L C09D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 312 652 A (ANTOINE PHILIPPE) 17 May 1994 (1994-05-17) claims 1-7; example 1 ---	1
A	US 5 219 945 A (DICKER IRA B ET AL) 15 June 1993 (1993-06-15) column 2, line 16 -column 3, line 42 ---	1
A	EP 0 351 966 A (DU PONT) 24 January 1990 (1990-01-24) page 3, line 52 -page 4, line 5 ---	1
A	US 5 859 113 A (JAKUBAUSKAS HENRY G ET AL) 12 January 1999 (1999-01-12) claims 1,4 --- -/--	1,4,5

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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- *A* document defining the general state of the art which is not considered to be of particular relevance
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- *O* document referring to an oral disclosure, use, exhibition or other means
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- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
29 November 2000	05/12/2000
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Meulemans, R

INTERNATIONAL SEARCH REPORT

Interr. Patent Application No
PCT/US 00/15202

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 272 201 A (SHOR ARTHUR C ET AL) 21 December 1993 (1993-12-21) claim 1 -----	1

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