



(51) International Patent Classification:

C08F 10/10 (2006.01) **C08F 4/52** (2006.01)
C08F 210/10 (2006.01) **C09J 123/22** (2006.01)
C08F 212/08 (2006.01) **C08L 23/22** (2006.01)
C08F 236/00 (2006.01) **C08L 67/06** (2006.01)
C08F 2/01 (2006.01) **C08L 63/00** (2006.01)

(21) International Application Number:

PCT/US2018/055617

(22) International Filing Date:

12 October 2018 (12.10.2018)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/572,440 14 October 2017 (14.10.2017) US

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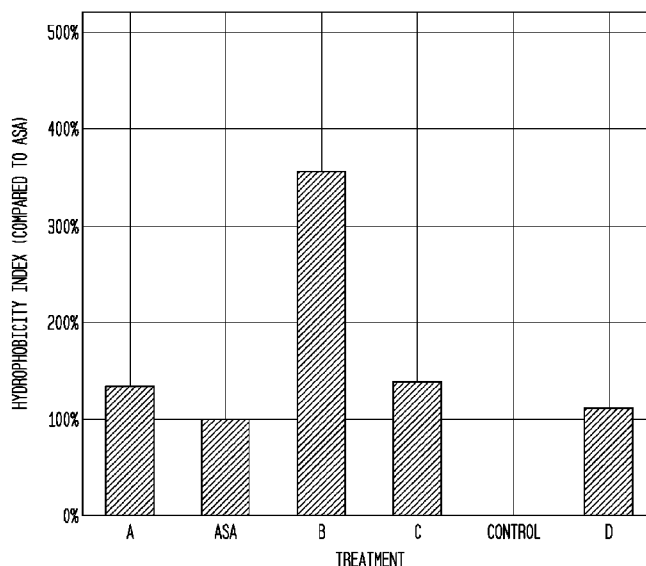
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(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,

(54) Title: ISOBUTYLENE COPOLYMERS, METHOD FOR MAKING ISOBUTYLENE COPOLYMERS AND ISOBUTYLENE COPOLYMER PRODUCTS

FIG. 5



(57) Abstract: Isobutylene copolymer includes repeat units derived from isobutylene and one or more comonomers selected from isoprene, butadiene, cyclopentadiene, dicyclopentadiene, limonene, substituted styrenes, and C4 to C10 dienes other than isoprene, butadiene, limonene, cyclopentadiene, or dicyclopentadiene, wherein the molar ratio of isobutylene derived repeat units to the comonomer derived repeat units is from 75: 1 to 1.5: 1. The copolymers have a molecular weight, M_n , of from 200 to 20,000 Daltons and typically have a high double bond content and a high vinylidene double bond content when diene monomers are utilized.



OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

- (84) Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:

31 May 2019 (31.05.2019)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2018/055617**A. CLASSIFICATION OF SUBJECT MATTER****C08F 10/10(2006.01)i, C08F 210/10(2006.01)i, C08F 212/08(2006.01)i, C08F 236/00(2006.01)i, C08F 2/01(2006.01)i, C08F 4/52(2006.01)i, C09J 123/22(2006.01)i, C08L 23/22(2006.01)i, C08L 67/06(2006.01)i, C08L 63/00(2006.01)i**

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)

C08F 10/10; C08D 1/26; C08D 3/04; C08F 120/08; C08F 210/12; C08F 4/14; C08F 6/00; C08F 210/10; C08F 212/08; C08F 236/00; C08F 2/01; C08F 4/52; C09J 123/22; C08L 23/22; C08L 67/06; C08L 63/00

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: isobutylene, isoprene, copolymer, polymerization temperature, low molecular weight

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5556932 A (RATH, HANS P. et al.) 17 September 1996 See columns 3, 5-7; claims 1, 3; and table 1.	1-23,31-47
Y		24-30,48-51
Y	ABBATE, M. et al. 'Maleated polyisobutylene: a novel toughener for unsaturated polyester resins.' Journal of Applied Polymer Science, 1995, vol. 58, pp. 1825-1837 See abstract; and page 1826.	24-30,48-51
A	US 2005-0043440 A1 (RESENDES, R. et al.) 24 February 2005 See the whole document.	1-51
A	US 3896097 A (PRIOLA, ALDO et al.) 22 July 1975 See the whole document.	1-51
A	US 2007-0142621 A1 (REIF, LOTHAR et al.) 21 June 2007 See the whole document.	1-51



Further documents are listed in the continuation of Box C.



See patent family annex.

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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

12 April 2019 (12.04.2019)

Date of mailing of the international search report

12 April 2019 (12.04.2019)

Name and mailing address of the ISA/KR

International Application Division

Korean Intellectual Property Office

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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