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[Continued on next page]

(54) Title: ADHESIVE COATINGS

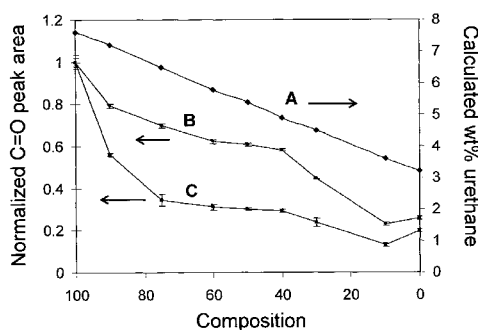
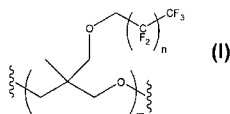


Figure 22. ATR-IR on the hybrid compositions where, A, calculated wt% urethane, B, normalized C=O peak area (diamond crystal), and C, normalized C=O peak area (germanium crystal)



(57) Abstract: A monolithic, self-stratifying polymer coating, comprising: inner and outermost surfaces on opposite sides of the coating, the inner surface being in contact with and adhered to an article; a surface region, extending from the outermost surface to a depth of about 2 nm from the outermost surface; a middle region, extending from a depth of about 2 nm from the outermost surface to a depth of less than about 2000 nm from the outermost surface; and a bulk region, extending from a depth of less than about 2000 nm from the outermost surface to the inner surface; wherein the surface region comprises a fluorinated polyoxetane having the formula: (I) wherein n is an integer of 0-11, and m is an integer > 0, in a greater concentration relative to the middle and bulk regions; wherein the middle region comprises 3F-SiO_{1.5} groups in a greater concentration relative to the surface and bulk regions; and wherein the bulk region comprises a polyurethane in a greater concentration relative to the surface and middle regions.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/048425**A. CLASSIFICATION OF SUBJECT MATTER***C08G 65/332(2006.01)i, C08G 18/48(2006.01)i, C08L 71/00(2006.01)i, C09D 171/00(2006.01)i, C09D 175/04(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)

C08G 65/332; C09D 11/00; C08G 18/00; C08G 65/32; C08L 71/00

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: fluoros polyoxetane, monolithic, self-stratifying, adhesive, coating

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
PX	ZHANG, WEI et al., "A Polyurethane Surface Modifier: Contrasting Amphiphilic and Contraphilic Surfaces Driven by Block and Random Soft Blocks Having Trifluoroethoxymethyl and PEG Side Chains", Macromolecular Chemistry and Physics, Vol.213, Issue 14, pages 1415-1434 14 June 2012 See scheme 1, experimental section, table 1, 2	1-10,20
PX	ZHANG, WEI et al., "Liquid–Liquid Extraction of 3FOx and 5FOx Polyoxetane Diols: Impact on Polyurethane Mechanical Properties, Surface Morphology and Wetting Behavior", Macromolecular Chemistry and Physics, Vol.213, Issue 12, pages 1225-1238 19 April 2012 See experimental section	1-10,17-20
A	WO 2008-141323 A1 (VIRGINIA COMMONWEALTH UNIVERSITY et al.) 20 November 2008 See page 7, figure 3	1-33
A	US 2009-0054577 A1 (UCHIDA, HIROSHI et al.) 26 February 2009 See claims 1, 4, 10	1-33
A	US 2004-0242804 A1 (MEDSKER, ROBERT E. et al.) 02 December 2004 See claims 1,2 and paragraphs [0061], [0333]	1-33

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Date of the actual completion of the international search

28 FEBRUARY 2013 (28.02.2013)

Date of mailing of the international search report

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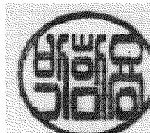
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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