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(54) Title: FLUOROPOLYMER COMPOSITIONS AND TREATED SUBSTRATES

(57) Abstract: A composition for imparting surface properties to substrates comprising a polymer of at least one polyurethane having at least one urea linkage prepared by: (i) reacting (a) at least one diisocyanate, polyisocyanate, or mixture thereof, having isocyanate groups, and (b) at least one fluorinated compound selected from the formula (I): Rf1-L-X (I) wherein Rf1 is a monovalent, partially or fully fluorinated, linear or branched, alkyl radical having 2 to 100 carbon atoms; optionally interrupted by 1 to 50 oxygen atoms; wherein the ratio of carbon atoms to oxygen atoms is at least 2:1 and no oxygen atoms are bonded to each other; L is a bond or a linear or branched divalent linking group having 1 to about 20 carbon atoms, said linking group optionally interrupted by 1 to about 4 hetero-radicals selected from the group consisting of -O-, -NR1-, -S-, -SO-, -SO2-, and -N(R1)C(O)- wherein R1 is H or C1 to C6 alkyl, and said linking group optionally substituted with CH2Cl; X is an isocyanate-reactive group selected from the group consisting of -OH, -N(R)H, and -SH; and thereafter (ii) reacting with (c) water and (d) 0.05 to about 2.0 % by weight of an isocyanate-reactive fluorinated particulate component, based on a total dry weight of the composition.



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## INTERNATIONAL SEARCH REPORT

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## A. CLASSIFICATION OF SUBJECT MATTER

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ADD.

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 D06M

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	WO 2005/080465 A1 (LEIBNIZ INST NEUE MATERIALIEN [DE]; ARPAC ERTUGRUL [TR]; SCHMIDT HELMU) 1 September 2005 (2005-09-01) page 13, paragraph 2 - paragraph 3 page 14, paragraph 3 - page 18, paragraph 3	1-13
A	US 2005/095933 A1 (KIMBRELL WILLIAM C [US] ET AL) 5 May 2005 (2005-05-05) cited in the application paragraph [0073] - paragraph [0075]	1-13
A,P	WO 2009/076108 A1 (DU PONT [US]; BROWN GERALD ORONDE [US]; HERZOG AXEL HANS-JOACHIM [US];) 18 June 2009 (2009-06-18) claims 1-11	1-13
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,P	WO 2009/076179 A2 (DU PONT [US]; BROWN GERALD ORONDE [US]; HERZOG AXEL HANS-JOACHIM [US]) 18 June 2009 (2009-06-18) claims 1-14 -----	1-13

# 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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