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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:**

28 February 2013

(54) **Title:** ELASTIC FABRIC

(57) **Abstract:** To provide elastic fabric that has comfortable wear and fit even in thin and light fabric by using a high-powered polyurethane elastic fiber that has at least 1.5 times the active force and recovery per unit fineness at the time of 100 to 200% elongation compared to conventional polyurethane elastic fiber. Resolution means an elastic fabric comprising a polyurethane elastic fiber made of a polyol, with a molecular weight between 450 and 1600 with a ratio of weight average molecular weight to number average molecular weight of at least 1.8, an organic diisocyanate compound, and a diamine compound.



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A. CLASSIFICATION OF SUBJECT MATTER***D03D 15/08(2006.01)i, D04B 1/18(2006.01)i, D04B 21/18(2006.01)i, D01F 6/70(2006.01)i, D01D 5/04(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)

D03D 15/08; D06M 15/564; D01F 6/70; D02G 3/32; D06N 3/14; D06M 101/32; A41D 31/00; C08G 18/00

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: elastic, fabric, polyuretan

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	JP 2009-235658 A (HYUNDAI MOTOR CO., LTD. et al.) 15 October 2009 See abstract; pages 2-4 and claims 3, 7	1 2,3,10
A	KR 10-1998-0016620 A (JEIL CO., LTD.) 05 June 1998 See pages 1-3 and claim 1	1-3,10
A	JP 2005-154994 A (TEIJIN FIBERS CO., LTD.) 16 June 2005 See abstract; pages 2-4 and claims 1-3	1-3,10
A	JP 4632351 B2 (NIKKA KAGAKU CO., LTD.) 26 November 2010 See abstract; pages 2-3 and claims 1-2	1-3,10



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"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

26 DECEMBER 2012 (26.12.2012)

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Name and mailing address of the ISA/KR

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2012/039306**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☒ Claims Nos.: 4-9
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/039306

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2009-235658 A	15.10.2009	CN 101545210 A DE 102008041987 A1 KR 10-0969041 B1 KR 20090102105 A US 2009-0247671 A1 US 7812075 B2	30.09.2009 01.10.2009 09.07.2010 30.09.2009 01.10.2009 12.10.2010
KR 10-1998-0016620 A	05.06.1998	None	
JP 2005-154994 A	16.06.2005	None	
JP 4632351 B2	26.11.2010	JP 2006-206835 A	10.08.2006