



New connection on: : 24-10-2018 : 01:29:01 - Last disconnection on: : 23-10-2018 : 18:30:29

V 4.0.0.44358(LP,U,linux) (Rev:43856 2017-04-27 09:03:29 +0200#(D201802)) (RPM D201802)

Welcome to EPOQUE Rebuild under the Production Environment

[EPODOC: SS 5] ..fiepodoc

 Database: EPODOC

[EPODOC: SS 5] ((absorbent or absorptive) and (nonwoven or non-woven or (non 1d woven)))

Results in EPODOC 8.222

EPODOC: term 'NON-WOVEN' not found in index 'BI'. WARNING(1)

[SS 6] ((absorbent or absorptive) and (nonwoven or "non-woven" or (non 1d woven)))

Results in EPODOC 8.222

EPODOC: term 'NON-WOVEN' not found in index 'BI'. WARNING(1)

[SS 7] ((absorbent or absorptive) and (nonwoven or (non 1d woven)))

Results in EPODOC 8.222

[SS 8] * and lubricant+

Results in EPODOC 12

[SS 9] ..li



1/12 © EPODOC / EPO

PN - [JP2014068954](#) A 20140421

PNFP - JP5998000B B2 20160928

PR - JP20120218979 20120930

AP - JP20120218979 20120930

DT - I

CCI - [A61F13/51108](#) ; [A61F13/51113](#) ;
[A61F13/5121](#) ; [A61F13/8405](#) ;
[A61F13/472](#)



CUI	- A61L15/20 ; A61L15/50 ; D06M13/10
CQI	- A61F13/51104
CCA	- A61F2013/8455
CUA	- D06M2200/00
FI	- A41B13/02&R; A61F13/15&146; A61F13/18&B; A61F13/18&310A; A61F13/472; A61F13/511&110; A61F13/511&200; A61F13/512; A61L15/20&200; A61L15/26&200; A61L15/34&200; A61L15/44&200; A61L15/48&200; D04H1/76
FT	- 3B200/AA03; 3B200/BA03; 3B200/BA06; 3B200/BB03; 3B200/BB21; 3B200/CA11; 3B200/DB20; 3B200/DC01; 3B200/DC02; 3B200/DC05; 3B200/DC09; 3B200/EA07; 4L047/CA10; 4L047/CA12; 4L047/CA19; 4L047/CB07; 4L047/CC04; 4L047/CC05
PA	- (A) UNI CHARM CORP
TI	- (A) NONWOVEN FABRIC AND ABSORBENT ARTICLE
AB	- (A) PROBLEM TO BE SOLVED: To provide a nonwoven fabric for a top sheet of an absorbent article which is hard to become sticky and remains dry after absorbing menstrual blood and which prevents the absorbed menstrual blood from diffusing on the nonwoven fabric.SOLUTION: A nonwoven fabric for a top sheet of an absorbent article has a lengthwise direction and a crosswise direction, and has a plurality of ridge portions and a plurality of groove portions which extend in the lengthwise direction and are alternately arranged in the crosswise

direction. The ridge portions and the groove portions each have a plurality of through holes. The ridge portions have blood **lubricant**-containing areas including a predetermined blood **lubricant**.

2/12 © EPODOC / EPO

PN	- JP2014068923 A 20140421	
PNFP	- JP6012380B B2 20161025	
PR	- JP20120218742 20120928	
AP	- JP20120218742 20120928	
DT	- I	
CCI	- A61F13/51104 ; A61F13/51108 ; A61F13/51113 ; A61F13/513 ; A61F13/472	
CUI	- A61L15/225 ; A61L15/50	
CCA	- D04H1/76	
CUA	- A61L2400/10	
FI	- A41B13/02&E; A41B13/02&N; A61F13/15&146; A61F13/18&310Z; A61F13/472; A61F13/511&110; A61F13/511&200; A61F13/511&300; A61L15/20&200; A61L15/26&200; A61L15/44&200; D04H1/76; D04H13/00	
FT	- 3B200/AA03; 3B200/BB03; 3B200/BB14; 3B200/BB21; 3B200/BB26; 3B200/DC02; 4L047/AA14; 4L047/AA21; 4L047/AA27; 4L047/BA09; 4L047/BD02; 4L047/CA12; 4L047/CA15; 4L047/CC04; 4L047/CC05	
PA	- (A) UNI CHARM CORP	
TI	- (A) NONWOVEN FABRIC AND ABSORBENT ARTICLE	
AB	- (A) PROBLEM TO BE SOLVED: To provide a nonwoven fabric for a	

top sheet of an **absorbent** article which remains dry after absorbing menstrual blood and prevents the absorbed menstrual blood from diffusing on the **nonwoven** fabric.SOLUTION:
A **nonwoven** fabric 5 for a top sheet of an **absorbent** article has a lengthwise direction and a crosswise direction, and has a plurality of units in the crosswise direction which are composed of four areas or a first area 1, a second area 2, a third area 3, and a fourth area 4 which extend in the lengthwise direction. The second area and the fourth area have a higher content of fibers oriented in the lengthwise direction than the third area, and the first area has a higher content of the fibers oriented in the crosswise direction than the third area. The second area, the third area, and the fourth area have a second blood **lubricant**-containing area, a third blood **lubricant**-containing area, and a fourth blood **lubricant**-containing area, and the basis weights of blood **lubricant** in the second blood **lubricant**-containing area and the fourth blood **lubricant**-containing area are larger than the basis weight of the blood **lubricant** in the third blood **lubricant**-containing area.

3/12 © EPODOC / EPO

PN - [JP2013230343](#) A 20131114
PNFP - JP6116178B B2 20170419
PR - JP20120084294
20120402; JP20120218837
20120928
AP - JP20120218837 20120928
DT - I
CT - || STSE (A)



[JP2008503323](#) A 20080207 [];
[JP2005504591](#) A 20050217 [];
[JP2011510801](#) A 20110407 [];
[JP2000512886](#) A 20001003 [];
[JP2007509695](#) A 20070419 [];
[JP2008029830](#) A 20080214 [] (KAO CORP);
[JP2008266813](#) A 20081106 [] (UNI CHARM CORP);
[JP2008025084](#) A 20080207 [] (UNI CHARM CORP);
[JP2008002034](#) A 20080110 [] (UNI CHARM CORP);
[JP5122007B](#) B1 20130116 []

CCI - [A61F13/51104](#) ; [A61F13/51113](#) ;
[A61F13/513](#) ; [A61L15/20](#) ;
[A61L15/50](#)

CUI - [A61F13/537](#) ; [A61F13/538](#)

CUA - [A61F13/511](#) ; [A61F2013/51059](#) ;
[A61F2013/51061](#) ;
[A61F2013/51066](#) ; [A61F13/52](#)

FI - A61F13/15&146; A61F13/18&B;
A61F13/472; A61F13/511&100;
A61F13/511&110;
A61F13/511&200; A61F13/512;
A61F13/512&300;
A61L15/20&200;
A61L15/22&200; A61L15/48&200

FT - 3B200/AA03; 3B200/BA04;
3B200/BB03; 3B200/BB21;
3B200/CA11; 3B200/DA12;
3B200/DC02; 3B200/DC04;
3B200/DC09; 3B200/DC10

PA - (A)
UNICHARM CORP

TI - (A)
ABSORBENT ARTICLE

AB - (A)
PROBLEM TO BE SOLVED: To
provide an **absorbent** article
which hardly causes a sticky
feeling on a top sheet and
wherein the top sheet remains
dry after absorbing menstrual
blood because the absorbed
menstrual blood is hardly
retained in a high fiber density

region.SOLUTION: An **absorbent** article includes: a liquid-permeable top sheet; a liquid-impermeable back sheet; and an absorber between the top sheet and the back sheet. The top sheet is formed of a **nonwoven** fabric or a woven fabric having, in an excretory opening contact region, a high fiber density region and a low fiber density region having a fiber density lower than the high fiber density region, the top sheet contains a prescribed blood **lubricant** in the excretory opening contact region, and the basis weight of the blood **lubricant** in the high fiber density region is larger than the basis weight of the blood **lubricant** in the low fiber density region.

4/12 © EPODOC / EPO

PN - [JP2003172352](#) A 20030620

PNFP - JP4144216B B2 20080903

PR - JP20010374888 20011207

AP - JP20010374888 20011207

DT - I

FI - F16C29/06; F16N9/04

FT - 3J104/AA03; 3J104/AA65; 3J104/AA69; 3J104/AA74; 3J104/BA24; 3J104/BA33; 3J104/BA80; 3J104/CA24; 3J104/CA34; 3J104/CA35; 3J104/DA05; 3J104/EA10

PA - (A)
NSK LTD

TI - (A)
DIRECT-ACTING BEARING DEVICE

AB - (A)
PROBLEM TO BE SOLVED: To provide a direct-acting bearing device capable of shortening slider length, and stably supplying a **lubricant** for a long period.
- SOLUTION: A hollow portion 18 extending in a longitudinal direction is formed in a slider body 6A. On an upper part of a rectangular shape of the hollow portion 18, a dividing member 20 having a square-shaped cross-section is installed so as to extend in the longitudinal direction. An inner space of the dividing member 20 is made to be a **lubricant** collecting portion 16, and an outer space under the dividing member 20 is made to be a rolling element returning passage 12. The **lubricant** collecting portion 16 is filled with a **lubricant absorbent** member such as sponge, **nonwoven** fabric, and felt. A

nipple is detachably equipped to an outside plate connected to an end cap, and a **lubricant** is supplied from the outside into the **lubricant** collecting portion 16 through the nipple.

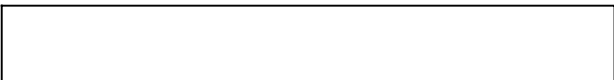
- COPYRIGHT: (C)2003,JPO

5/12 © EPODOC / EPO

PN - [JP2000027875](#) A 20000125
 PR - JP19980199014 19980714
 AP - JP19980199014 19980714
 DT - I
 CCI - [F16C33/7813](#) ; [F16C19/383](#)
 CCA - [F16C2202/64](#)
 FI - F16C33/76&A; F16C33/78&Z
 FT - 3J016/AA04; 3J016/BB03; 3J016/BB05; 3J016/CA01; 3J016/CA06
 PA - NIPPON SEIKO KK
 TI - SEALSTRUCTURE
 AB - PROBLEM TO BE SOLVED: To lengthen the service life of a bearing and to reduce frictional torque by preventing the degradation of lubricating performance and generation of rust by mixing of moisture with an inside **lubricant**. SOLUTION: This seal structure 1 seals the end part of a bearing 2 for iron and steel equipment, and has an oil seal 3 as a seal main body. The oil seal 3 has a spring lip part 5 contacting with the outside diameter surface of a inner ring (on the rotary side) 4 of the bearing 2, and the lip part 5 is installed on core metal 8 fixed to a ring member 7 having the almost same diameter as an outer ring 6 of the bearing 2. The water **absorptive** part 9 is arranged on the inside wall surface of the core metal 8. The water **absorptive** part 9 is constituted by laminating a highly water **absorptive** polymer 10 as an water absorber, cotton-like pulp 11 and **nonwoven** fabric 12 in order toward the inside, and is fixed to the inside wall surface of the core metal 8 through a means such as welding.

6/12 © EPODOC / EPO

PN - [JPH0438712](#) A 19920207
 PR - JP19900144479 19900604
 AP - JP19900144479 19900604
 DT - I
 FI - G11B5/41&D
 PA - TDK CORP
 TI - CLEANING TAPE
 AB - PURPOSE:To provide the cleaning tape of a low friction resistance for magnetic heads and particularly the magnetic heads for video recorders where the cleaning tape and the magnetic head come into contact with

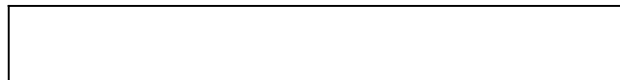


each other in a wide area by holding a **lubricant** on the surface of flexible base.

CONSTITUTION: The layer 2 of the **lubricant** is formed on the surface of the flexible base 1 which is a **non-woven** fabric having a liquid **absorptive** or liquid holdable surface, polyester film provided with a porous surface, woven fabrics of polyester fibers and nylon fibers, and others. A liquid feed part 3 is provided by feeding a known cleaning liquid at the time of use. The layer 2 of the **lubricant** is exposed in the place of the part not fed with the liquid. The liquid feed part 3 in this embodiment is provided at about half the width of the layer 2. A silicone oil, fatty acid, fatty acid ester, fluorine oil, phosphate, etc., are usable as the **lubricant**.

7/12 © EPODOC / EPO

- PN - [FR2721948](#) A1 19960105
- PNFP - FR2721948 B3 19960906
- PR - FR19940008051 19940630
- AP - FR19940008051 19940630
- DT - *
- CCI - [D04H1/52](#) ; [D04H1/46](#) ;
[D04H13/00](#)
- PA - (A1 B3)
ORGEL [FR]
- TI - (A1)
Absorbent material for e.g. medical dressings, diapers and tampons
- AB - (A1)
The **absorbent** material is composed of mineral fibres, bonded together by needling or stitching Pref. the fabric weight is 200-800 g/m² or 300-500 g/m², in a thickness of 0.5-5.0 cm. The material contains a



hydrophilic **lubricant**, to aid needle bonding or stitching, using fatty acid esters, polyglycol or colloidal silica. The needle bonding or stitching points are at intervals of 3-20 mm. The longitudinal shear strength is not less than 20 gF/g of fibres. The material is contained within a wrapping of **non-woven** polyolefin or polypropylene fibres. The stitching thread is of glass or polypropylene. The mineral fibres are such as glass fibres.

8/12 © EPODOC / EPO

- | | | |
|------|---|--|
| PN | - FR2298316 A1 19760820 | |
| PNFP | - FR2298316 B1 19790928 | |
| PR | - FR19750002439 19750127 | |
| AP | - FR19750002439 19750127 | |
| DT | - *; Rep | |
| CCI | - A61F13/53 ; A61L15/24 ;
A61L15/26 | |
| CLC | - A61L15/24 , C08L23/12 , INV
- A61L15/26 , C08L67/00 , INV | |
| CCA | - A61F2013/530131 ;
A61F2013/530182 | |
| PA | - (A1 B1)
KIMBERLY CLARK CO [US] | |
| TI | - (A1)
Sanitary napkin with non-woven cover - of unfinished thermoplastic autogenously bonded fibres | |
| AB | - (A1)
A sanitary napkin comprises a core of absorbent matl. enclosed by a cover. The cover, in its body contacting area, consists of a non-woven , porous and dry-formed web having a basis wt. of about 0.25-1 oz/sq.yd. The web consists of unfinished polyolefin or polyester fibres characterised by surfaces devoid of lubricants , | |

antistatic, or wetting agents. The web is intermittently autogenously bonded at discrete areas occupying 5-50% of the web area and at a density of 50-3200 sq/in. Menstrual fluid passes through the cover and into the **absorbent** core under the body pressures of normal usage to provide a dry surface feel to the wearer.

9/12 © EPODOC / EPO

- PN - [EP0678606](#) A1 19951025
- PR - FR19940003832
19940331; FR19940008051
19940630
- AP - EP19950400685 19950328
- DT - *; Rep
- CT - || STSE (A1)
[WO9315246](#) A1 19930805
[A] (SAINT GOBAIN ISOVER [FR])
[A] 1,5,7
* page 4, line 10 - line 21 *
* page 7, line 1 - page 11,
line 34 *;
[EP0151018](#) A2 19850807
[A] (JOHNSON & JOHNSON [US])
[A] 1,10
* page 1, line 22 - page 5,
line 23 *;
[WO8600570](#) A1 19860130
[A] (LYDALL INC [US])
[A] 1
* line 2 - page 18, line 19 *
- CCI - [D04H1/4209](#) ; [D04H1/4218](#) ;
[D04H1/4291](#) ; [D04H1/46](#) ;
[D04H1/52](#) ; [D04H13/00](#) ;
[D04H18/02](#)
- PA - ORGEL [FR]
- TI - **Absorbent** felt.
- AB - The **absorbent** material is composed of mineral fibres, bonded together by needling or stitching Pref. the fabric weight is 200-800 g/m² or 300-500 g/m², in a thickness of 0.5-5.0

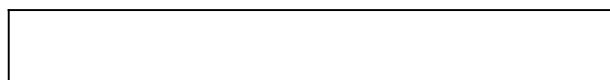
11 11

cm. The material contains a hydrophilic **lubricant**, to aid needle bonding or stitching, using fatty acid esters, polyglycol or colloidal silica. The needle bonding or stitching points are at intervals of 3-20 mm. The longitudinal shear strength is not less than 20 gF/g of fibres. The material is contained within a wrapping of **non-woven** polyolefin or polypropylene fibres. The stitching thread is of glass or polypropylene. The mineral fibres are such as glass fibres.

<IMAGE>

10/12 © EPODOC / EPO

- PN - [DE2503469](#) A1 19760729
- PR - DE19752503469
19750124; AU19750077207
19750109; US19700015164
19700227
- AP - DE19752503469 19750124
- DT - *; Rep
- CCI - [A61F13/51](#) ; [A61L15/00](#) ;
[A61L15/24](#)
- CLC - [A61L15/24](#) , [C08L23/12](#) , INV
- CCA - [A61F2013/51002](#) ;
[A61F2013/51042](#) ;
[A61F2013/530131](#) ;
[A61F2013/530182](#)
- PA - KIMBERLY CLARK CO
- TI - Sanitary napkin with **non-woven**
cover - of unfinished
thermoplastic autogenously
bonded fibres
- AB - A sanitary napkin comprises a
core of **absorbent** matl. enclosed
by a cover. The cover, in its body
contacting area, consists of
a **non-woven**, porous and dry-
formed web having a basis wt. of
about 0.25-1 oz/sq.yd. The web
consists of unfinished polyolefin
or polyester fibres characterised



by surfaces devoid of **lubricants**, antistatic, or wetting agents. The web is intermittently autogenously bonded at discrete areas occupying 5-50% of the web area and at a density of 50-3200 sq/in. Menstrual fluid passes through the cover and into the **absorbent** core under the body pressures of normal usage to provide a dry surface feel to the wearer.

11/12 © EPODOC / EPO

PN - [CA2145893](#) A1 19951201
 PR - US19940251769 19940531
 AP - CA19952145893 19950330
 DT - I
 CCI - [A61F13/206](#) ; [A61F13/2085](#)
 PA - KIMBERLY CLARK CO [US]
 TI - TAMPON WITH INTEGRAL COVER
 AB - Disclosed herein is a personal care **absorbent** product such as a tampon with an integral cover and a process for forming such a tampon. The process involves depositing molten thermoplastic fibers onto a surface of an **absorbent** core material, either continuously or intermittently, so that the molten fibers adhere to the surface of the **absorbent** core material thereby forming a fibrous **nonwoven** cover web. Additionally, during the deposition of the molten fibers onto the surface of the **absorbent** core, a **lubricant** may be added to the molten stream of fibers to facilitate user insertion of the completed product. Once the cover has been deposited and adhered to the **absorbent** core material, strips of the material are spirally wound, radially compressed and then optionally



fused using heat to form the covered tampon.

12/12 © EPODOC / EPO

PN - [EP0685213](#) A2 19951206

PNFP - EP0685213 A3 19970226
- EP0685213 B1 20011024

PR - US19940251769 19940531

AP - EP19950107487 19950516

DT - *; Rep

CT - || STSE (A3)
[WO8403833](#) A1 19841011
[XA] (SANETTA TEXTIL AB [SE])
[X] 1,2,5,9,10,13,15
* page 1, line 29 - page 2,
line 20; claim - *
[A] 3,4,6-8,11,12,14,16-18;
[US3976075](#) A 19760824
[A] (CHINAI KAYS, et al);
[US3784425](#) A 19740108
[A] (SCHUSTER W);
[US3683912](#) A 19720815
[A] (OLSON VIRGINIA A, et al);
[XP002021873](#) A[A];
[JPS5336996](#) A 00000000 [A]

CTNP - || STSE (A3)
[A] - DATABASE WPI, 1, Derwent
World Patents Index, vol. 78, no.
20, Database accession no. 78-
35617A, XP002021873
& JPS5336996 A 19780405 (UNI
CHARM KK)
[A]
* abstract *

CCI - [A61F13/206](#) ; [A61F13/2085](#)

PA - (A2 A3 B1)
KIMBERLY CLARK CO [US]

TI - (A2 A3)
Tampon with integral cover.
- (B1)
Tampon with integral cover

AB - (A2)
Disclosed herein is a personal
care **absorbent** product such as
a tampon with an integral cover
and a process for forming such a



tampon. The process involves depositing molten thermoplastic fibers (22) onto a surface of an **absorbent** core material (20), either continuously or intermittently, so that the molten fibers adhere to the surface of the **absorbent** core material (20) thereby forming a fibrous **nonwoven** cover web. Additionally, during the deposition of the molten fibers (22) onto the surface of the **absorbent** core, a **lubricant** (24) may be added to the molten stream of fibers to facilitate user insertion of the completed product. Once the cover has been deposited and adhered to the **absorbent** core material (20), strips of the material are spirally wound, radially compressed and then optionally fused using heat to form the covered tampon. <IMAGE>