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SUPERINTENDENCIA DE INDUSTRIA
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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



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Re: Expediente No. 05-128.929

Solicitud de patente a nombre de McNeil-PPC, Inc.

Yo, JIMENA ESCOBAR URIBE, identificada como aparece al pie de mi firma, domiciliada en la carrera 11 No. 86-53, piso 6, obrando como apoderada de la sociedad **McNeil-PPC, Inc.** domiciliada en New Jersey, Estados Unidos de América, solicitante de la patente de la referencia, en respuesta al oficio No. 6792 notificado por fijación en lista el 23 de mayo de 2008, relacionado con el concepto técnico de fondo No. 1290, para el cual ~~se~~ solicitó prórroga, me permito manifestar:

1. Con fundamento en la facultad que confiere el artículo 34 de la Decisión 486 al solicitante para modificar la solicitud de patente en cualquier momento del trámite, presento junto con este memorial nuevo capítulo descriptivo y nuevo capítulo reivindicatorio en el cual se realizan las modificaciones más abajo enunciadas.
 - 1.1 Se modificó todo el capítulo reivindicatorio de modo que ahora presenta el término "caracterizado por", con el fin de resaltar la diferencia entre el preámbulo y la parte caracterizante.
 - 1.2 Se modificó la reivindicación 26, creando una dependencia entre dicha cláusula y la reivindicación independiente 1, toda vez que se menciona la estructura allí divulgada.
 - 1.3 Así mismo, se creó una nueva dependencia entre la reivindicación 27 y las reivindicaciones 1 y 8, mencionando la estructura que se reclama en dichas cláusulas.
 - 1.5 Adicionalmente, se modificó la reivindicación 29, de modo que se mencione una estructura flexible absorbente de líquido acuoso como la que se reclama en las reivindicaciones 1, 9 y 14, creando así una dependencia entre dichas cláusulas.

En cuanto a estas modificaciones me permito decir que las mismas no amplían de ninguna manera la materia objeto de la presente solicitud y se realizaron con el ánimo de superar las objeciones de claridad y unidad de invención planteadas por

el examinador en su concepto técnico.

Para este efecto, me permito acompañar el recibo de pago No. 08-59,011 de julio 23 de 2008, con el cual queda cubierta la tasa correspondiente a la modificación de una solicitud de patente en cuanto a su capítulo reivindicatorio.

2. Claridad de la solicitud

Respecto a este punto me permito decir que mediante las modificaciones realizadas en el capítulo reivindicatorio quedan subsanadas la totalidad de las objeciones, de modo tal que las nuevas reivindicaciones proporcionan claridad y concisión a la invención descrita.

Así las cosas, es deseo del solicitante establecer que por medio de las modificaciones indicadas anteriormente, se pretende resaltar la diferencia que existen entre la presente invención y el estado del arte, ya que se agrega el término "caracterizado por", con el fin de mostrar los elementos o características novedosas de la invención.

Adicionalmente, el examinador establece en su concepto técnico que "*no se precisa la materia sobre la cual se solicita protección*", esta objeción también ha sido superada mediante las modificaciones realizadas.

3. Falta de Unidad de Invención

El examinador establece en su concepto técnico No. 1290 que la solicitud en estudio no cumple con el requisito de unidad de invención toda vez que se pueden diferenciar varios conceptos inventivos.

Así las cosas, es deseo del solicitante manifestar que por medio de las modificaciones enunciadas en el punto 1 de este memorial, las nuevas reivindicaciones 1 a 30 cumplen con el requisito de unidad de invención, toda vez que se ha creado una dependencia entre ellas, definiendo así un único concepto inventivo.

El examinador estableció en su concepto técnico que "*La presente solicitud no tiene unidad de invención, dado que contempla diferentes conceptos inventivos relacionados así... Como difieren tanto, no puede considerarse que correspondan al mismo concepto inventivo. Por lo anterior, se puede concluir que la presente solicitud no cumple con el requisito de unidad de invención*".

Sobre este particular el solicitante llama la atención al hecho que el artículo 25 establece que:

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"La solicitud de patente sólo podrá comprender una invención o un grupo de invenciones relacionadas entre sí, de manera que conformen un único concepto inventivo."
(El subrayado es nuestro)

Así las cosas, es claro que una solicitud de patente no debe tratarse exactamente del mismo producto, sino que por el contrario puede contener varias reivindicaciones independientes que conformen un único concepto inventivo, el cual en este caso específico es la estructura absorbente de la reivindicación 1.

Como el examinador podrá constatar, la reivindicación 1 define una estructura flexible absorbente de líquido acuoso; las reivindicaciones 2 a 22 precisan características de dicha estructura que limitan el alcance de la reivindicación 1 a las alternativas preferidas para la invención. Por su parte, las reivindicaciones 24, 25, 26, 27 y 29 están dirigidas a un artículo absorbente que comprende la estructura definida en la reivindicación 1 y sus dependientes. Las nuevas reivindicaciones 28 y 30 son dependientes de las cláusulas 27 y 29, por consiguiente, también están relacionadas con las primeras 22 reivindicaciones.

Siendo así, es claro que todas las reivindicaciones del pliego reivindicatorio presentado con este memorial tienen un único concepto inventivo que es la estructura reivindicada en la cláusula 1.

Adicionalmente, me permito informar que el Manual Andino de Patentes establece en el punto 8 del Capítulo III que:

"En una solicitud de patente se puede reivindicar:

a) una sola invención; o

b) un grupo de invenciones relacionadas entre sí por un único concepto inventivo

Cuando se trate del caso b), se debe considerar que el concepto inventivo único que relaciona las invenciones debe ser técnico, cumplir por sí mismo con los requisitos de novedad y nivel inventivo, y ser común a todas las reivindicaciones."

Así las cosas, por medio de las modificaciones mencionadas en el punto 1 de este memorial, quedan subsanadas dichas objeciones y por tanto, la solicitud cumple con el requisito de unidad de invención toda vez que está relacionada con un único concepto inventivo, el cual está basado en la estructura absorbente, que es novedosa e inventiva, y se extiende a proteger un artículo absorbente, cuya característica relevante es que está compuesto de la estructura absorbente que constituye el concepto inventivo común.

En resumen, me permito decir que gracias a las modificaciones expuestas en el

REIVINDICACIONES

1. Una estructura flexible absorbente de líquido acuoso (10), caracterizada porque comprende un substrato flexible (40) que tiene una primera superficie (41) y una segunda superficie (42) y un material absorbente de líquido acuoso (20) dispuesto en por lo menos una porción de dicha primera superficie (41) de dicho substrato flexible (40), en donde dicho material absorbente de líquido acuoso (20) comprende una mezcla homogénea de un adhesivo de fusión en caliente y un polímero absorbente de líquido acuoso, en donde dicho polímero absorbente de líquido acuoso está presente en la mezcla en una cantidad de más del 1 % en peso de la mezcla para proporcionar una absorbencia de más de 5 gramos por gramo (g/g) y en donde la estructura absorbente de líquido acuoso (10) tiene una rigidez de Gurley de menos de 400 mg y un calibre (30) de menos de 4 mm.

2.- La estructura de conformidad con la reivindicación 1, caracterizada además porque dicho substrato flexible (40) es impermeable a líquido.

3.- La estructura de conformidad con la reivindicación 1, caracterizada además porque dicho substrato flexible (40) es permeable a líquido.

4.- La estructura de conformidad con la reivindicación 1, caracterizada además porque dicho polímero absorbente de líquido acuoso está presente en la mezcla en una cantidad de más del 10% en peso de la mezcla.

5.- La estructura de conformidad con la reivindicación 1, caracterizada además porque dicho polímero absorbente de líquido acuoso está presente en la

21.- La estructura de conformidad con la reivindicación 18, caracterizada además porque dicho material absorbente de líquido acuoso (20) se dispone en dicho sustrato flexible (40) como una pluralidad de elementos discretos (225).

22.- La estructura de conformidad con la reivindicación 21, caracterizada además porque dicho elemento discreto (225) es un rectángulo que tiene una longitud (226) y un ancho (227), en donde dicha longitud (226) es más grande que dicho ancho (227).

23.- La estructura de conformidad con la reivindicación 22, caracterizada además porque dicha longitud (226) es de más de tres veces dicho ancho (227).

24.- Un artículo flexible absorbente de líquido acuoso, que tiene dos bordes longitudinales que definen entre los mismos el ancho del artículo y dos bordes transversales que definen entre los mismos la longitud del artículo, y dicho artículo caracterizado porque comprende la estructura que se reclama en la reivindicación 22, en donde dicha longitud se dispone en forma paralela a uno de dichos bordes longitudinales de dicho artículo.

25.- Un artículo flexible absorbente de líquido acuoso caracterizado porque comprende la estructura reclamada en la reivindicación 1, en donde dicho artículo es un dispositivo interlabial.

26.- Un artículo absorbente (510) caracterizado porque comprende:

una capa permeable (560) a líquido orientada hacia el cuerpo;

una capa impermeable (540) a líquido orientada hacia la prenda; y

la estructura de acuerdo a la reivindicación 1, en donde dicha estructura

está localizada entre dicha capa (560) orientada hacia el cuerpo y dicha capa (540) orientada hacia la prenda.

27.- Un artículo absorbente (910) que tiene un eje longitudinal (980), dicho artículo absorbente caracterizado porque comprende:

una capa permeable (960) a líquido orientada hacia el cuerpo;

una capa impermeable (940) a líquido orientada hacia la prenda;

un elemento absorbente (950) que se ubica entre dicha capa (960) orientada hacia el cuerpo y dicha capa (940) orientada hacia la prenda, dicho elemento absorbente (950) tiene una zona absorbente (955) central que se extiende longitudinalmente a lo largo del eje longitudinal (980) de dicho artículo absorbente (910), dicha zona absorbente (955) central tiene dos bordes longitudinales opuestos (951, 952) y dos bordes transversales opuestos (953, 954); y

una zona periférica (990) alineada en forma adyacente a uno de dicho bordes longitudinales (951, 952) de dicha zona absorbente (955), dicha zona periférica (990) comprende dicha capa (960) orientada hacia el cuerpo, dicha capa (940) orientada hacia la prenda y una estructura absorbente de líquido acuoso de acuerdo a las reivindicaciones 1 u 8; y

la zona absorbente (955) central y la zona periférica (990) tienen una rigidez de Gurley respectiva, en donde la rigidez de Gurley de la zona periférica (990) es menor que la rigidez de Gurley de la zona absorbente (955) central.

28.- El artículo absorbente de acuerdo con las reivindicaciones 26 y 27, caracterizado porque dicho artículo es una toalla sanitaria.

29.- Un artículo absorbente (710) caracterizado porque comprende:

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177



US005807367A

United States Patent

Diljak et al.

Patent Number: 5,807,367

Date of Patent: Sep. 15, 1998

[54] ABSORBENT ARTICLE HAVING LATERAL BARRIERS

[25] Inventors: Robert L. Diljak, Janet Jessie Larsen, both of Neenah, Wis.

[23] Assignee: Kimberly-Clark Worldwide, Inc., Neenah, Wis.

[21] Appl. No.: 757,272

[22] Filed: Nov. 27, 1996

[50] Int. Cl.: A61D 13/15

[52] U.S. Cl.: 604/369; 604/385.1; 604/386; 604/387; 604/388.2

[53] Field of Search: 604/305, 306; 604/369, 378, 385.1, 386, 387, 389, 390

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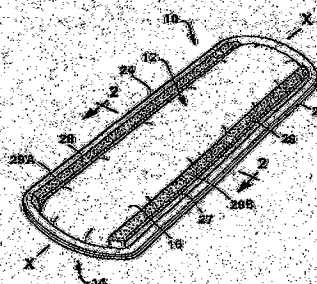
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[57] ABSTRACT

An absorbent article is provided having a central longitudinal axis and barriers positioned on opposing sides of the central axis. The absorbent article further includes an adhesive secured superposed over about 5% to about 100% of the body being surfaces of the barrier elements. The adhesive has a rheological property $\tan \delta$ of less than about 0.01 at a frequency of about 0.1 rad/sec per second and a $\tan \delta$ of less than about 0.1 at a frequency of about 1000 rad/sec per second.

20 Claims, 2 Drawing Sheets



U.S. Patent

Sep. 15, 1998

Sheet 1 of 2

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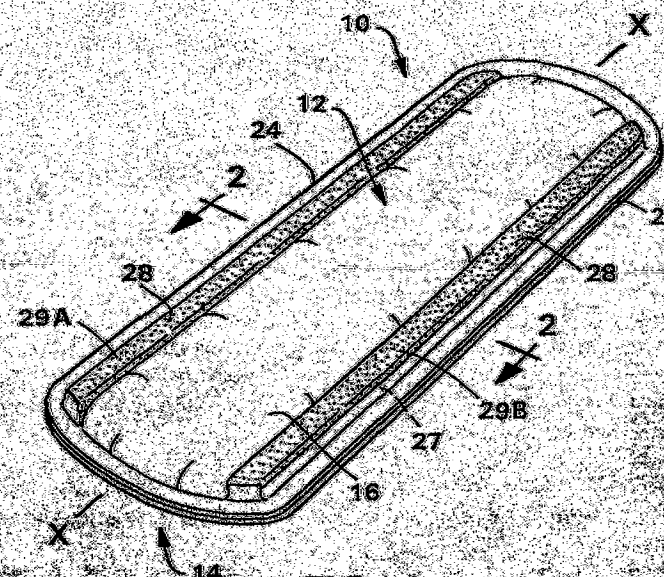


FIG. 1

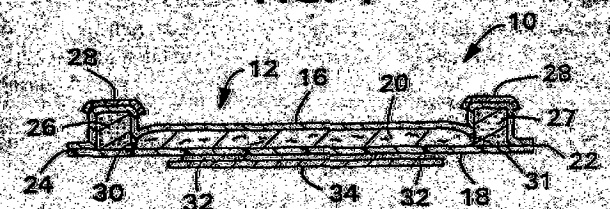


FIG. 2

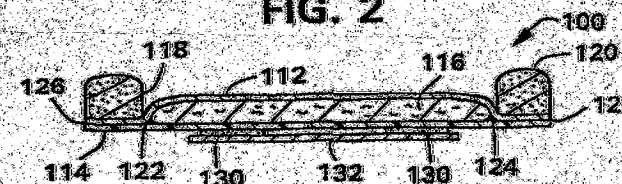


FIG. 3

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ABSORBENT ARTICLES HAVING LATERAL BARRIERS

BACKGROUND OF THE INVENTION

The present invention relates to articles for absorbing and containing body fluids. Particularly, the invention relates to an absorbent article having lateral barriers with a predetermined amount of adhesive tack which function to occlude fluid migration from the edges of the absorbent article.

All manner and variety of disposable absorbent devices, articles and appliances have been configured for the absorption of body fluids, such as menses, urine, feces and the like are well known. Such disposable absorbent articles are expected to readily absorb any body fluid insulating the body-facing surface thereof, retain the fluid within the absorbent and to prevent the discolored body fluids from soiling the person and/or the adjacent clothing. Examples of such absorbent articles include feminine care products, adult incontinence products, training pants and the like.

In the most basic form, the absorbent articles include several common components. Specifically, the disposable absorbent articles include a liquid-permeable, body-facing cover, a liquid-impermeable barrier positioned distally from the cover, and an absorbent material positioned between the cover and the barrier. The absorbent article can also include one or more layers for distributing the body fluid or layers adapted to isolate the cover from the used absorbent to give the cover a dry comfortable feel even when soiled. Typically the absorbent article has one or more means for securing the article during use. Specific types of securing means include adhesives, tapes, belts, side panels, mechanical fasteners and the like.

These absorbent devices, whether utilized as diapers, incontinence garments or sanitary napkins are subject to leakage, and in particular, leakage of liquid from the side edges of the article. Leakage from absorbent devices is generally attributed to a high concentration of fluid absorption at the point of fluid input. This could be the result of a sudden release of body fluid onto absorbent device, overloading its absorption capability, or the result of a prolonged, steady discharge which may have caused the absorbent material in the device to become super-saturated and unable to accept any large degree additional fluids from the body. Using a sanitary napkin as an illustration, menses will generally migrate radially from the point of input and will leak from the sides. It has been suggested that at least 20-25 percent of all sanitary napkins experience side leakage. One reason for this is that, when worn, the sanitary napkin can become deformed due to dynamic forces generated as the wearer moves or alters her stationary position. Generally, the sanitary napkin deforms by bunching, twisting, and tearing which are all well known in the art. The greatest deformation normally occurs within that part of the article which is located in the narrowest space between the wearer's thighs. As a result of the deformation the surface area of the sanitary napkin is greatly reduced which may lead to the soiling of the wearer's body, typically around the thigh region, and the undergarment.

A wide variety of special components and adaptations have been introduced in disposable absorbent articles in order to reduce or eliminate the incidence of side leakage. For instance, many absorbent articles include elastic structures positioned along the sides of the absorbent material and adjacent at least one of the cover or barrier. The elastic structures are intended to gather at least a portion of the side edge of the absorbent article to form walls, barriers, side

seals and the like to impede the flow of liquid past the side edges of the article. In addition to leg elastic structures, absorbent articles have also included elasticized containment flaps which project from the surface of the cover in an attempt to control the movement of liquid and possibly other body wastes toward the side edges of the absorbent article.

A problem associated with barriers, walls and the like is that to prevent liquids from soiling the wearer, the barriers are relatively tall. During use, their size makes them uncomfortable for the wearer and the barrier may fold over and obstruct the absorbent surface. This, in turn, may contribute to the soiling the wearer instead of preventing it.

Improving the performance of a disposable absorbent article continues to be a formidable undertaking, although a number of improvements have been made in both the materials used and its construction. However, eliminating leakage, particularly along the inside of the thighs without compromising comfort and fit has not yet met the desired needs of the consumer.

Therefore, there remains a need for a sanitary napkin that will be comfortable to wear while decreasing the chance of side leakage associated with the use of sanitary napkins during the menstrual period.

SUMMARY OF THE INVENTION

Briefly, the present invention relates to an absorbent article having longitudinal side barriers positioned a body-facing surface and a garment-facing surface. The absorbent article includes a cover disposed toward the body-facing surface, a barrier disposed toward the garment-facing surface and an absorbent material positioned between the cover and the barrier. The absorbent article also includes a barrier positioned on either side of the central longitudinal axis for intercepting body fluids migrating toward the side edges of the absorbent article. The absorbent article further includes a pressure sensitive adhesive superposed over at least a portion of the barrier. Adhesives, in accordance with the present invention, have a rheological property, measured in $\tan \delta$, referenced to about 20° Celsius of less than about 0.01 at a frequency of about 0.1 radians per second and a $\tan \delta$ of less than about 0.1 at a frequency of about 1000 radians per second. In a preferred embodiment the adhesive has a $\tan \delta$ which is below the line A-B. The line A-B is determined by graphically plotting frequency, in radians per second, versus $\tan \delta$ at a reference temperature of about 20° Celsius. Point A is a $\tan \delta$ of less than about 0.01 at a frequency of about 0.1 radians per second and Point B is a $\tan \delta$ of less than about 0.1 at a frequency of about 1000 radians per second.

In a preferred embodiment, the barrier is a foamed adhesive having the above described rheology.

Unexpectedly, it has been discovered that superposing an adhesive of the above qualities over at least a portion of the barrier significantly improves the effectiveness of the barrier in intercepting body fluid when compared to absorbent articles having an adhesive or a barrier alone.

The general object of the present invention is to provide an absorbent article having improved fluid containing properties. A more specific object of the invention is to provide an absorbent article having lateral barrier with an adhesive.

Another object of the invention is to provide a sanitary napkin that is comfortable to wear and which can be readily removed with little or no pain or discomfort to the wearer.

Another object of the invention is to provide a sanitary napkin having good longitudinal liquid distribution and preventing side soiling at the edges of the article.

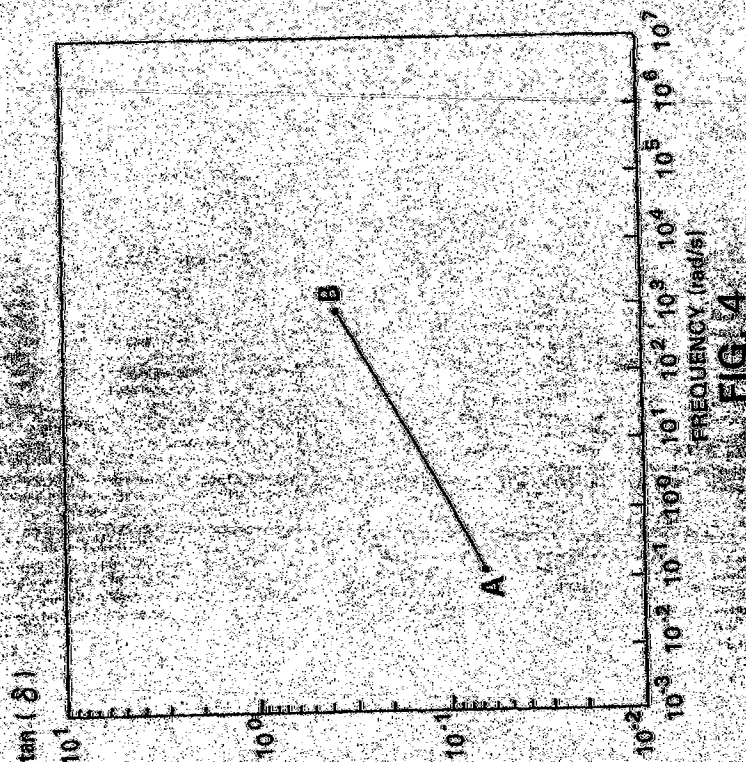


FIG. 4

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Other objects and advantages of the present invention will become more apparent to those skilled in the art in view of the following description and the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a top plan view of an absorbent article showing one embodiment of the invention.

FIG. 2 is a cross-sectional view taken along 2-2 of FIG. 1.

FIG. 3 is a cross-sectional view of another embodiment of the present invention.

FIG. 4 is a graphical plot of frequency (in cycles per second) versus the rheological property (in dynes/cm²) illustrating the line AB.

DETAILED DESCRIPTION OF THE INVENTION

For ease of description, the present invention will be described as being utilized in a preferred embodiment such as catenular device, i.e., a sanitary napkin. However, one skilled in the art would understand that the invention is not limited thereto and with appreciate the adaptability and utility of the invention in other disposable absorbent structures such as diapers, adult incontinence articles, training pants and the like.

As used herein, the term "sanitary napkin" refers to an article which is worn by females adjacent to the pudendal region and which is intended to absorb and contain various exudates which are discharged from the body, such as blood, menses and urine. The sanitary napkin is intended to be discarded after a single use. Intercutaneous devices which reside partially within and partially external of the female wearer's vestibule are also within the scope of this invention. It is to be understood that the invention may be adapted for use in other absorbent articles such as diapers, incontinence devices and the like.

For ease of understanding hereinafter referring to the similar numerals designate like parts in the different views and embodiments. Referring to FIGS. 1 and 2, an embodiment of a sanitary napkin 10 is shown. Although depicted as having generally a rectangular shape, the sanitary napkin 10 can have any variety of shapes well known to those skilled in the art. For example, hourglass, oval, etc. The sanitary napkin 10 has a central longitudinal axis X-X, a body-facing surface 12 and a garment-facing surface 14. The term "longitudinal", as used in the art, refers to a line, axis or direction in the plane of the sanitary napkin 10 that is generally aligned with or approximately parallel to a vertical plane which bisects a standing wearer into left and right body halves when the sanitary napkin 10 is worn. The body-facing surface 12 is generally understood as that side of the sanitary napkin 10 intended to be directed or positioned adjacent to the body of the wearer while the garment-facing surface 14 is on the opposite side and is intended to reside adjacent to the wearer's undergarments when the sanitary napkin is worn. Accordingly, when referring herein to the body-facing surface 12 or the garment-facing surface 14 it is intended to be descriptive of a general orientation, position, or direction of the element or portion of the element.

Generally, the sanitary napkin 10 includes a cover 16, a baffle 18 and an absorbent 20 positioned between the cover 16 and the baffle 18. To prevent body fluids from seeping the sides 22 and 24 of the sanitary napkin 10 barrier structures 26 and 27 are provided. The barrier structure is 26

and 27 are longitudinally positioned between the central longitudinal axis X-X and the sides 22 and 24 of the sanitary napkin 10 and preferably are positioned parallel to the central longitudinal axis X-X. By providing longitudinal barriers 26 and 27 toward of the sides 22 and 24 the lateral migration of body fluid insulating the body-facing surface 12 can be directed longitudinally along the barriers 26 and 27. Thus, greater utilization of the absorbent 20 is achieved, lessening the likelihood of the sanitary napkin 10 leaking from the sides 22 and 24. The terms "disposed", "disposed on", "disposed near", "disposed at" and variations thereof are intended to mean elemental arrangement such that one element can be integral with another element, or one element can be a separate structure bonded to or placed with or placed adjacent to another element.

The sanitary napkin 10 further includes an adhesive 28 superposed over at least a portion of each barrier structure 26 and 27. Preferably, the adhesive 28 is superposed over at least about 5% of the body-facing surface 12 of each barrier 26 and 27. The adhesive 28 is adapted to secure only a portion of the sanitary napkin 10 to the wearer's body and preferably secures only the barriers 26 and 27 to the wearer.

It has unexpectedly been discovered that the use of an adhesive 28 in conjunction with the barriers 26 and 27 enhances the functionality of each barrier 26 and 27 in preventing liquids from leaking from the sides 22 and 24. The adhesive 28 also enhances the comfort like sanitary napkin 10 during use by retaining the barriers 26 and 27 in a proper relationship relative to the absorbent 20 and the wearer.

Looking at the sanitary napkin 10 in greater detail, the cover 16 is disposed toward the body-facing surface 12 of the sanitary napkin 10 and preferably is adjacent to the absorbent 20. The cover 16, which is designed to contact the wearer's body, is liquid permeable and should retain fluid or no fluid in its structure so that it provides a relatively dry surface against the wearer's skin. The cover 16 can be made from various polymeric films that are designed to enhance fluid migration into the absorbent 20. The cover 16 can be constructed from woven or nonwoven fibers or strands extracted from natural or synthetic materials which are easily penetrated by body fluids. Thermoplastic polymers such as polyethylene or polypropylene are preferred. Other absorbent covers might be produced by laminating film and fiber substrates. It can also be beneficial to aperture or emboss (not shown) the cover 16 to increase the rate at which the body fluids can penetrate down and into the absorbent 20.

The cover 16 can have at least a portion of its body-facing surface treated with a surfactant to render the cover 16 more hydrophilic. This results in permitting the insulating liquid to more readily penetrate the cover 16. The surfactant also diminishes the likelihood that the insulating liquid, such as menstrual fluids, will flow off the cover 16 rather than being absorbed by the absorbent 20.

The baffle 18 is liquid-impermeable and is disposed toward the garment-facing surface 14 of the sanitary napkin 10. Preferably, the baffle 18 will permit the passage of air and moisture vapor out of the sanitary napkin 10 while blocking the passage of body fluids. A good material is a micro-embossed, polymeric film, such as polyethylene or polypropylene, having a thickness of about 0.025 to 0.13 millimeters. Bicomponent films can also be used as well as woven and nonwoven fabrics which have been treated to render them liquid-impermeable. Another suitable material is a closed-cell polyolefin foam. A closed-cell polyethylene

foam having a thickness ranging from about 0.5 millimeters to about 10 millimeters works well.

In a preferred embodiment of the sanitary napkin 10, the cover 16 and the baffle 18 extend beyond the absorbent 20 and are bonded together to define the longitudinal sides 22 and 24 of the sanitary napkin 10. The sides 22 and 24 enclose the absorbent 20 to prevent fluid leakage and to form a soft, comfortable side edge for the wearer. The cover 16 and baffle 18 can be bonded together using any means commonly known in the art for this purpose, such as by gluing, crimping, pressure and/or heat sealing and ultrasonics.

The absorbent 20, which is positioned between the cover 16 and the baffle 18, is generally composed of one or more materials that are hydrophilic, compressible, conformable and non-irritating to the wearer. Acceptable materials are known in the art and include, for example, various natural or synthetic fibers, wood pulp fibers, regenerated cellulose or cotton fibers, or a blend of pulp and other fibers. The absorbent layers may also be comprised of other known materials used in absorbent articles such as cellulose sponges, hydrophilic synthetic sponges, such as polyurethane, and the like. The total absorbent capacity of the absorbent 20 should be comparable with the design volume loading for the intended use of the sanitary napkin 10.

The absorbent 20 can contain superabsorbent materials which are effective in retaining body fluids. Superabsorbents have the ability to absorb a large amount of fluid in relation to their own weight. Typical superabsorbents used in absorbent articles, such as sanitary napkins, can absorb anywhere from 5 to 60 times their weight in body fluids. Superabsorbents can be incorporated into the absorbent 20 as separate layers sandwiched with the cellulose fluff. Superabsorbents may be in the form of flakes, granules, films, particles, fibers or the like.

Barrier structures 26 and 27 are also referred to as first and second top barrier elements 26 and 27. The barrier structures 26 and 27 are identical and therefore only one will be described. The barrier 26 is positioned laterally to the central longitudinal axis X-X, between the central longitudinal axis X-X and the side 22 of the sanitary napkin 10. The barrier 26 can reside on top of the cover 16 or desirably, is positioned between the cover 16 and the baffle 18. In a preferred embodiment, the barrier 26 is positioned between the cover 16 and the baffle 18, and adjacent a first longitudinal side edge 30 of the absorbent 20. This arrangement facilitates halting the lateral flow of absorbent liquids toward the side 22 through the absorbent 20 as well as unabsorbed liquids across the cover 16. The barrier 26 may have a linear shape of a line or may be curved while remaining in the area between the central longitudinal axis X-X and the side 22. Desirably, the first barrier 26 is adjacent to the edge 30. Following the contour of the absorbent 20. Desirably, second barrier 27 is adjacent second longitudinal side edge 31 and follows its contour of absorbent 20. The barrier 26 extends at least 10% of the absorbent length and preferably, it extends substantially over the full length of the absorbent 20.

As shown in FIG. 1, barrier elements 26 and 27 extend upwardly to first and second top surfaces 29A and 29B. First and second top surfaces 29A and 29B have respective first and second lengths. First and second top surfaces 29A and 29B are higher than the highest portion of the absorbent and extend at substantially uniform heights along the first and second lengths.

The barrier 26 can be hydrophilic but preferably is hydrophobic. The barrier 26 desirably is constructed of a

flexible, easily compressed, resilient material. Suitable materials for forming the barrier 26 include hydrophobic polymeric foams, such as, for example, polyurethane foams. Other flexible, resilient materials may be used such as foamed styrene butadiene, foamed polyethylene, foamed silicones, foamed vinyl plastics, soft sponge rubber and the like. Such foams can be obtained from Woodbridge Foam Fabricating, Inc., located at 1130 Ind. Road, Chattanooga, Tenn. or from the E. N. Murry Company, Inc., having offices in Denver, Colo.

It is important for comfort and functionality that the barrier 26 be resilient and compressible. The barrier 26 should have a resiliency in the range of about 15% to about 35%, preferably, from about 15% to about 30% and more preferably, from about 15% to about 20%. Resiliency is determined by the ASTM Test Method D3574-91, procedure 11.

Compressibility can be in the range of about 0.1 psi to about 2 psi at 50% compression, preferably from about 0.3 psi to about 1.7 psi and most preferably from about 0.5 psi to about 1.5 psi. Compressibility is determined by the ASTM Test Method D3574-91 procedure C. Desirably, the foamed polymeric material will have a density of about 0.02 grams per cubic centimeter (cm³) to about 0.1 grams per cm³.

The barrier 26 can have a width ranging from about 5 millimeters to about 12 millimeters and preferably the width is from about 1 millimeter to about 8 millimeters. The barrier 26 can have a height ranging from about 2 millimeters to about 25 millimeters, preferably, the height is from about 6 millimeters to about 15 millimeters, and most preferably, the barrier 26 has a height extending above the plane of the absorbent body-facing surface.

The adhesive 28 is superposed over at least a portion of the barrier 26 and preferably is secured to the cover 16 adjacent to the barrier 26. The adhesive 28 can be superposed over approximately 5% to 100% of the barrier 26 body-facing surface. The adhesive 28 can be configured in a substantially regular pattern or an asymmetrical pattern. For example, the adhesive 28 can be dots, ovals, swirls, various linear or non-linear arrays of adhesive longitudinally and/or transversely oriented and reticulated webs having unobstructed interlaces between the adhesive fibers or combinations thereof. The adhesive 28 can have a thickness of about 0.01 millimeters to about 2 millimeters. The amount of adhesive 28 applied to the barrier 26 should be enough only to obtain sufficient adherence of the barrier 26 to the wearer to achieve the desired result and provide a satisfactory removal comfort.

The adhesive 28 can be applied to the cover 16 by techniques known in the art. For example, screen printing or extruding the adhesive 28 from one or more nozzles onto the cover 16 as described in the commonly assigned U.S. Pat. No. 4,995,333 issued to Keller et al. on Feb. 26, 1991, the entire disclosure of which is incorporated herein and made a part hereof.

The adhesive 28 deposited in accordance with the present invention may be any pressure sensitive adhesive, and preferably a hot melt adhesive, that is characterized as having specific rheological properties described below. The rheological analysis of an adhesive is a method of determining the viscoelastic properties of polymers. Further explanations of polymer rheology and their measurement are discussed in: *Viscoelastic Properties of Polymers*, John D. Ferry, John Wiley & Sons, third edition, pages 264-280 (1960); *Studies of Triblock Copolymer-Tagged Resin Interactions by Viscoelasticity and Adhesive Performance*,

Mun. Int. The Journal of Adhesion Science Technology, Vol. 3, No. 7, pages 551-570 (1989); and test procedure ASTM D 4440-84 the disclosures of which are incorporated herein by reference and made a part hereof. It is critical to the present invention that the adhesive have a rheology value for $\tan \delta$ less than about 0.01 at a frequency of about 0.1 radians per second and a $\tan \delta$ value of less than about 0.1 at a frequency of about 1000 radians per second. It is to be understood that all values for $\tan \delta$ herein are referenced to 21° Centigrade.

Referring to FIG. 4, preferred adhesives have a $\tan \delta$ below the line A-B. Line A-B is determined by graphically plotting, on a log-log scale, frequency versus $\tan \delta$ where point A is a $\tan \delta$ of 0.01 at a frequency of about 0.1 radians per second and point B is a $\tan \delta$ of 0.1 at a frequency of about 1000 radians per second. Adhesives having $\tan \delta$ values below line A-B at frequencies between about 0.1 to about 1000 radians per second lack sufficient adhesion to keep the sanitary napkin 10 securely and comfortably attached to the body of the wearer during use. However, it has been unexpectedly discovered that adhesives having this rheology property will permit the barriers 26 and 27 to remain comfortably secured to the wearer thereby enhancing the gasketing and intercepting characteristics of the barriers 26 and 27.

Suitable adhesives include, for example, Fuller 1419X and Fuller 1490 available from Fuller Adhesive located at 3530 Lexington Ave., St. Paul Minn., 55126-2076.

The rheological properties for $\tan \delta$ is measured on built adhesive samples that are placed on a substrate and having a thickness of approximately 2 to 3 millimeters. The adhesive is cut into a 25 millimeter diameter circle and placed between two 25 millimeter parallel plate fixtures of the Rheometric Dynamic Spectrometer, which can be obtained from Rheometric, Inc. located at 1 Pleasanton Road, Pleasanton, N.J. 08954. Adhesive samples should be allowed to equilibrate at a selected test temperature before analyzing. A microcomputer governs the application of a 4% peak to peak shear strain to the sample. The frequency can be controlled to a fraction of a rad/sec. The values for $\tan \delta$ are calculated from the voltage before peak to peak amplitude of the torque signal, the phase lag of the torque output wave. Typically, a computer using RHIO testing software available from Rheometric, Inc. is used to control the operation of the apparatus. Values for time-temperature superposition are calculated between the frequencies of about 0.001 and 10⁵ radians per second using techniques known to those skilled in the adhesive art. Frequency sweeps from 0.1 rad/s to 100 rad/s are run at 10° increments from -60° C. to 120° C. The RHIO testing software shifts the curves relative to a reference temperature of 20° C. from these shifted curves, a "master" curve can be generated.

Referring to FIG. 3, another embodiment of the invention is illustrated as a sanitary napkin 100. The sanitary napkin 100 has a cover 112, a buffer 114, an absorbent 116 and barrier structures 118 and 120. The cover 112 and buffer 114 extend beyond longitudinal side edges 122 and 124 of the absorbent 116 and are secured together to form sides 126 and 128 of the sanitary napkin 100. The barrier structures 118 and 120 are secured to the cover 112 between the center longitudinal axis X-X (as seen in FIG. 1) and the sides 126 and 128 of the sanitary napkin 100. Preferably, the barrier structures 118 and 120 are secured to the cover 112 adjacent to the longitudinal side edges 122 and 124.

The barrier structures 118 and 120 are similar to those described above except they are formed by forming an

adhesive to the desired dimensions. Adhesive forming is generally known and uses apparatus available from Nordson Corporation located at 11475 Lakeside Drive, Duluth, Ga. 30136. Suitable adhesives for forming include, for example, Finley H5173 and Finley 995-373 which are available from Finley Adhesives located at Watertown Plank Road, Watertown Wis., 53226.

Referring to FIGS. 2 and 3, during use the sanitary napkins 10 and 100 can be held in place by any support means or attachment means well-known for such purposes such as a garment adhesive 32 and 130. The garment adhesive 32 and 130 provides a means for securing the sanitary napkin 10 and 100 to the crotch portion of the panty. Thus, a portion or all of the garment facing surface 14 of the backsheet 26 can be coated with the garment adhesive 32 and 130. Any garment adhesive or glue used in the art for such purposes can be used for the garment adhesive herein, with pressure sensitive adhesives being preferred.

The garment adhesive 32 and 130 is typically covered with a removable release liner 34 and 132 in order to keep the adhesives 32 and 130 from drying out or adhering to a surface other than the crotch portion of the panty prior to use. Commercially available release liners commonly used for such purposes can be utilized herein. The sanitary napkin 10 and 100 of the present invention is used by removing the release liner 34 and 132 and thereafter placing the sanitary napkin 10 and 100 in a panty so that the adhesive 32 and 130 contacts the panty. The adhesive 32 and 130 maintains the sanitary napkin 10 and 100 in position within the panty during use. Referring to FIG. 2, when in use the adhesive 32 secured to the cover 16 contacts and lightly adheres to the wearer. Thus, enhancing the performance of the barriers 26 and 27 in collecting fluids longitudinally along the length of the absorbent 20 and reducing or eliminating the occurrence of side leakage from the sanitary napkin 10.

While the invention has been described with reference to a preferred embodiment and illustrated with regard to a range of optional features, those skilled in the art will appreciate that various substitutions, omissions, changes and modifications may be made without departing from the spirit hereof. Accordingly, it is intended that the foregoing description be deemed merely exemplary of the preferred scope of the present invention and not be deemed a limitation thereof.

We claim:

1. An absorbent article having a central longitudinal axis, and further comprising:

- a liquid-permeable cover;
- a liquid-impermeable buffer;
- an absorbent positioned between said cover and said buffer;
- first and second barrier elements for intercepting fluids, said barrier elements being positioned on opposing sides of the central longitudinal axis, said first and second barrier elements facilitating lateral flow of liquids; and
- adhesive superposed over at least a portion of each of said first and second barrier elements, said adhesive having a rheological property $\tan \delta$ of less than about 0.01 at a frequency of about 0.1 radians per second and a $\tan \delta$ of less than about 0.1 at a frequency of about 1000 radians per second;

2. An absorbent article of claim 1 wherein said adhesive is a hot melt adhesive;

3. The absorbent article of claim 1, wherein said adhesive is secured to said cover and superposed over at least about

5% of a body-facing surface of each of said first and second barrier elements.

4. The absorbent article of claim 1, said absorbent further comprising first and second longitudinal side edges, said first and second barrier elements being positioned adjacent respective said first and second longitudinal side edges of said absorbent.

5. The absorbent article of claim 4, said first and second longitudinal side edges having respective first and second lengths, said first and second barrier elements extending at least 10% of the respective lengths of each of said first and second longitudinal side edges.

6. The absorbent article of claim 4, said first and second longitudinal side edges having respective first and second lengths, said first and second barrier elements extending substantially the full respective length of said first and second longitudinal side edges.

7. An absorbent article of claim 1 wherein said adhesive is foamed.

8. The absorbent article of claim 1 wherein said first and second barrier elements are hydrophilic.

9. The absorbent article of claim 8 wherein said first and second barrier elements comprise foam material having a resilience of about 15% to about 60%.

10. An absorbent article of claim 9 wherein said foam material has a compressibility of about 0.1 psi to about 2 psi at 50% compression.

11. An absorbent article having a central longitudinal axis, and further comprising:

- a liquid-permeable cover;
- a liquid-impermeable buffer;
- an absorbent positioned between said cover and said buffer;
- first and second barrier elements for intercepting fluids, said barrier elements being positioned on opposing sides of the central longitudinal axis, said first and second barrier elements facilitating lateral flow of liquids;
- adhesive superposed over at least about 5% of said first and second barrier elements, said adhesive having a rheological property $\tan \delta$ which is below a line A-B between the frequencies of about 0.1 radians per second and about 1000 radians per second, wherein the line A-B is defined by graphically plotting frequency in radians per second versus $\tan \delta$ of said adhesive at a reference temperature of about 20° C., the line A-B having as point A a $\tan \delta$ of less than about 0.01 at a frequency of about 0.1 radians per second and as point B a $\tan \delta$ of less than about 0.1 at a frequency of about 1000 radians per second;

12. The absorbent article of claim 11 wherein said adhesive is a hot melt adhesive.

13. The absorbent article of claim 11, said absorbent further comprising first and second longitudinal side edges, said first and second barrier elements being positioned between said cover and said buffer, and adjacent respective said first and second longitudinal side edges of said absorbent.

14. The absorbent article of claim 13, said longitudinal side edges having respective first and second lengths, said first and second barrier elements extending substantially the full respective length of said first and second longitudinal side edges.

15. The absorbent article of claim 13 wherein said adhesive is superposed over about 5% to 100% of a body-facing surface of each of said first and second barrier elements.

16. A sanitary napkin having a central longitudinal axis, and further comprising:

- a liquid-permeable cover;
- a liquid-impermeable buffer;
- an absorbent positioned between said cover and said buffer;
- first and second barrier elements for intercepting fluids, said barrier elements being positioned on opposing sides of the central longitudinal axis, said first and second barrier elements facilitating lateral flow of liquids;
- adhesive having a rheological property $\tan \delta$ which is below a line A-B, wherein the line A-B is defined by graphically plotting frequency in radians per second versus $\tan \delta$ of said adhesive at a reference temperature of about 20° C., the line A-B having as point A a $\tan \delta$ of less than about 0.01 at a frequency of about 0.1 radians per second and as point B a $\tan \delta$ of less than about 0.1 at a frequency of about 1000 radians per second;

17. The sanitary napkin of claim 16 wherein said absorbent has first and second longitudinal side edges and wherein said first and second barrier elements are positioned adjacent respective said first and second longitudinal side edges.

18. The sanitary napkin of claim 17, said first and second longitudinal side edges having respective first and second lengths, said first and second barrier elements extending substantially the full respective length of said first and second longitudinal side edges.

19. The sanitary napkin of claim 16 wherein said adhesive is foamed.

20. The sanitary napkin of claim 16 wherein said first and second barrier elements have respective first and second heights, the first and second heights extending above a plane of a top surface of said absorbent.

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2. Modificaciones (artículo 34 D. 486 y art. 22 Tratado PCT)

Se aceptan las modificaciones realizadas por el solicitante toda vez que no amplían el objeto inicial de la solicitud.

3. Objeto de la invención

- Título de la solicitud (folio 1)
Estructura flexible absorbente de líquido
- Las reivindicaciones 1 a 30 de la solicitud en estudio se refieren a:
 - (1) Una estructura flexible absorbente de líquido acuoso, **caracterizada porque** comprende un sustrato flexible (40) que tiene una primera superficie (41) y una segunda superficie (42) y un material absorbente de líquido acuoso (20) dispuesto en por lo menos una porción de dicha primera superficie de dicho sustrato flexible (40), en donde dicho material absorbente de líquido acuoso (20) comprende una mezcla homogénea de un adhesivo de fusión en caliente y un polímero absorbente de líquido acuoso, en donde dicho polímero absorbente de líquido acuoso está presente en la mezcla en una cantidad de más del 1% en peso de la mezcla para proporcionar una absorbencia de más de aproximadamente 5 gramos por gramo (g/g) y en donde la estructura absorbente de líquido acuoso (10) tiene una rigidez de Gurley de menos de 400 mg y un calibre de menos de 4 mm.
 - (26) Un artículo absorbente caracterizado porque comprende:
 - (27) Un artículo absorbente que tiene un eje longitudinal dicho artículo absorbente porque comprende
 - (29) Un artículo absorbente caracterizado porque comprende...
- Los anteriores productos buscan proporcionar mejores artículos absorbentes desechables
- La Clasificación Internacional de Patentes (IPC) para esta solicitud es **A 61 L 15/00**.

4. De la solicitud de Patente

4.1. Reivindicaciones (Artículo 30 D. 486)

El capítulo reivindicatorio de la solicitud en estudio presenta los siguientes defectos:

- No se precisa la materia sobre la cual se solicita protección. Cómo se explicará en el punto 4), la presente solicitud no posee unidad de invención, por lo que no está definida la materia sobre la cual se solicita protección. Esta observación ya había sido hecha en conceptos técnicos anteriores.
- La descripción relaciona en el folio 10 que "existe la necesidad de una estructura absorbente de líquido acuoso, que sea muy delgada, es decir que tenga una absorbencia mayor de 5 g/g, y muy flexible, es decir que tenga una rigidez Gurley menor a 400 mg" es decir estas son los objetivos que persigue la solicitud.

Como ya se dijo en anteriores conceptos técnicos relacionados con esta solicitud, por su estructura todas las reivindicaciones deben constar de dos partes: una primera parte, el preámbulo, sirve para situar el objeto de la invención dentro de un contexto técnico, es lo que se conoce y sobre lo que no se reclama ningún privilegio, y una segunda parte, o parte característica, define lo que se considera novedoso y se desea proteger.

Como se observa en la reivindicación principal el solicitante caracteriza las reivindicaciones por el resultado enunciado arriba (es decir, por la absorbencia y por la rigidez Gurley), mas no por la forma en que se llegó a ese resultado. Esto es inadmisibles. Las reivindicaciones deben caracterizar un producto por la forma o constitución del mismo, las partes que lo componen y todo lo que permita establecer de cómo se llegó a ese resultado. No se aceptan reivindicaciones que caractericen resultados.

Esta observación ya había sido hecha en el concepto técnico 2505 (folio 105) y el solicitante no ha realizado las correcciones pertinentes.

En el folio 111, el solicitante enuncia que una de las características de la presente invención radica en que la rigidez de Gurley del material descrito no exceda los 400 mg. Contrario a lo señalado por el solicitante en su memorial, en la descripción dicha propiedad no corresponde a una característica nueva sino a una propiedad deseada.

Además de lo anterior, el solicitante debe recordar que la legislación es clara en establecer que "se considera modelo de utilidad, a toda nueva forma, configuración o disposición de elementos, de algún artefacto, herramienta, instrumento, mecanismo u otro objeto o de alguna parte del mismo, que permita un mejor o diferente funcionamiento, utilización o fabricación del objeto que le incorpore o que le proporcione alguna utilidad, ventaja o efecto técnico que antes no tenía" (Artículo 81 Decisión 486). En consecuencia no se podría otorgar privilegio a una solicitud que se caracteriza por unas propiedades, dado que no correspondería ni a una nueva forma, ni a una nueva configuración (RAE define configurar como 'Dar determinada forma a algo', algo que evidentemente no corresponde con una propiedad física) ni a una disposición de elementos. Por consiguiente el solicitante está obligado a quitar las propiedades de la parte característica de la reivindicación si desea que se le otorgue un privilegio de patente de modelo de utilidad.

Por lo anterior, el capítulo reivindicatorio no cumple con el requisito de definición, claridad, concisión o sustento por la descripción de acuerdo al art. 30 de la Decisión 486 y/o art. 22 Tratado PCT.

El solicitante solo tendrá una última oportunidad de corregir su solicitud

5. Unidad de invención (Artículo 25 D. 486)

La presente solicitud no tiene unidad de invención, dado que contempla diferentes conceptos inventivos relacionados así:

- *La primera es una estructura absorbente (reivindicación 1 y dependientes)*
- *La segunda es un artículo absorbente (reivindicación 27) la cual considera como nuevos un gran número de partes no incluidas en la reivindicación 1.*
- *La tercera es un artículo absorbente (reivindicación 29) la cual considera como nuevos un gran número de partes no incluidas en la reivindicación 1, y diferentes a las de la reivindicación 27.*

Entre ellos no existe una relación dado que lo que considera nuevo cada reivindicación independiente difiere con lo que considera nuevo las demás reivindicaciones independientes.

Por lo anterior, se puede concluir que la presente solicitud no cumple con el requisito de unidad de invención.

El solicitante argumenta que según el artículo 25 "La solicitud de patente sólo podrá comprender una invención o un grupo de invenciones relacionadas entre sí,

de manera que conformen un único concepto inventivo" y que el único concepto inventivo es la estructura absorbente de la reivindicación 1.

La conclusión a la que llega el solicitante es totalmente falsa. El Tribunal Andino ha dicho, citando varios tratadistas, (Proceso 69-IP-2007) que "(...) todo invento, para hacerse acreedor a un privilegio, debe tener un solo objeto principal (...) que se define en la primera reivindicación, cuyo contenido debe concretarse a enunciar la característica o el conjunto de características que reflejan la novedad del invento. Es, por lo tanto, la primera reivindicación expresión exacta de la novedad del nivel inventivo o, lo que es igual, de su objeto principal. El privilegio otorgado se limita, en consecuencia, a lo enunciado en la primera reivindicación y dos patentes de invención pueden coexistir si los contenidos de la primera reivindicación de cada una de ellas no coinciden (...) Las reivindicaciones subsiguientes deben estar subordinadas a la primera como otras tantas características que subsidiariamente concurren a la realización del objetivo principal del invento en múltiples formas, todas ellas comprendidas por su esencia en la primera reivindicación. De modo que las mismas características enunciadas en una reivindicación subsisten a la primera, pueden figurar en dos patentes de invención sin que haya interferencia de derechos, porque en cada caso concurren a solucionar dos objetos principales diferentes". (Resaltado de la oficina)

De lo anterior se tiene que las reivindicaciones subsiguientes deben estar subordinadas a la reivindicación primera y no pueden encontrarse sueltas como en la presente solicitud se encuentran.

Por otro lado, el Tribunal es claro en señalar que el contenido concreto de la primera reivindicación debe señalar las características que considera nuevas. En el la reivindicación 27 y la reivindicación 29, independientes también, relacionan cosas que se consideran nuevas pero que no están en la primera reivindicación, lo que contradice directamente lo exigido por el legislador.

Además, y contrario a lo afirmado por el solicitante no hay un único concepto inventivo. Debe recordar el solicitante que la parte característica de la primera reivindicación es lo que se considera como novedoso e inventivo (Tribunal Andino, "todo invento, para hacerse acreedor a un privilegio, debe tener un solo objeto principal (...) que se define en la primera reivindicación, cuyo contenido debe concretarse a enunciar la característica o el conjunto de características que reflejan la novedad del invento. Es, por lo tanto, la primera reivindicación expresión exacta de la novedad del nivel inventivo o, lo que es igual, de su objeto principal"). Luego si existen otras características diferentes a las de la primera reivindicación en reivindicaciones subsecuentes que no están subordinadas a la primera, por ende son independientes, se concluye que no hay un único concepto inventivo.

El solicitante solo tendrá una última oportunidad para modificar su solicitud.

6. Determinación del Estado de la Técnica

De acuerdo a lo observado, **NO** es posible realizar una correcta **Determinación del Estado de la Técnica y Evaluación de los requisitos de patentabilidad.** Solo cuando se haya corregido adecuadamente la solicitud y se haya orientado de forma tal que sea claro lo que quiere ser protegido, sólo en ese momento esta oficina podrá elaborar una determinación correcta del estado de la técnica y una evaluación correcta de los requisitos de patentabilidad.

Sin embargo, se hará una aproximación a dicho estudio, teniendo en cuenta las características que el solicitante considera novedosas en el primer grupo inventivo conformado por la reivindicación 1 y sus dependientes.

- La fecha que se ha tenido en cuenta para determinar el estado de la técnica es 23 de mayo de 2003
- Teniendo en cuenta la fecha indicada se realizó la búsqueda en el estado de la técnica de documentos relacionados con la solicitud encontrándose los siguientes documentos más relevantes:

Nº	Documento	Título	Fecha de publicación*
D1	EP 1013291	Hot melt adhesive comprising an absorbent	28.06.2000
D2	US 5853867	Absorbent composite, Method for production thereof and absorbent article	29.12.1998
D3	US 5807367	Absorbent article having lateral barriers	15.09.1998

7. Análisis de patentabilidad (Artículo 14 D. 486)

7.1. Novedad (Artículo 16 D. 486)

El solicitante desea que se le proteja un artículo absorbente con la siguiente disposición de elementos:

un substrato (40) que tiene una primera superficie (41) y una segunda superficie (42) y un material absorbente de líquido acuoso (20) dispuesto en por lo menos una porción de dicha primera superficie de dicho substrato flexible(40), en donde dicho material absorbente de líquido acuoso (20) comprende una mezcla homogénea de un adhesivo de fusión en caliente y un polímero absorbente de líquido acuoso, en donde dicho polímero absorbente de líquido acuoso está presente en la mezcla en una cantidad de más del 1% en peso de la mezcla

El documento D1 relaciona artículos absorbentes (601) con dos superficies (602 y 603) con un elemento absorbente (630) con un adhesivo de fusión en caliente (640) y un polímero absorbente en proporciones entre 1 y 60%. Todos los elementos de la solicitud colombiana se encuentran en D1, por consiguiente, la presente solicitud carece de la novedad para que se conceda el privilegio solicitado.

El documento D2 también relaciona artículos absorbentes que evidentemente tienen dos superficies, y que incorporan materiales absorbentes que tienen polímeros absorbentes en cantidades no inferiores a 80% en un caso, no inferiores a 30% en otro caso y adhesivos relacionados en la columna 8 los cuales coinciden con los establecidos en la solicitud de patente.

El documento D3 también señala artículos absorbentes (10) con dos superficies (12 y 14), un material absorbente 20 y un adhesivo 28. Luego la disposición de elementos también es igual a la reseñada por la actual solicitud.

De todo lo anterior, la presente solicitud no sería nueva.

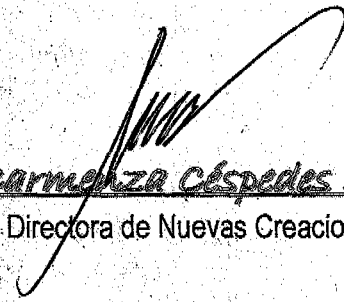
8. Conclusión:

Los requisitos de patentabilidad de la presente solicitud se encuentran afectados así:

N°	Documento N°	Reivindicaciones afectadas	Requisito que afecta
D1	EP 1013291	1 - 30	Nivel inventivo
D2	US 5853867	1 - 30	Nivel inventivo
D3	US 5807367	1 - 30	Nivel inventivo

En cumplimiento del artículo 45 de la Decisión 486 de la Comisión de la Comunidad Andina, se le indica que debe dar respuesta dentro del término de TREINTA días contados a partir de la fecha de notificación de la presente comunicación. En caso de no dar respuesta al presente requerimiento, o si a pesar de la respuesta subsistieran los impedimentos para la concesión, se denegará la patente.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo quinto del título primero de la Circular Única N° 10 de 2001.


Alix Carmona Céspedes De Vergel
Directora de Nuevas Creaciones (C)

Concepto Técnico No. 3492

Examinador Técnico 202003

El anterior requerimiento fue notificado por fijación en lista, de fecha _____

29 OCT. 2010