Description

Title of Invention: DISPOSABLE WEARING ARTICLE

Technical Field

[0001] The present disclosure relates to disposable wearing articles and more specifically to disposable wearing articles such as disposable diapers, toilet-training pants, disposable incontinence pants, disposable sanitary napkins, and the like.

Background

[0002] Wearing articles provided with an absorbent structure including a core wrapped with a wrapping sheet are known. For example, JP H11-299825 A (PTL 1) discloses a sanitary napkin including a liquid-permeable topsheet, a liquid-impermeable backsheet and an absorbent core disposed between these sheets. The core is formed of a mixture of fluff wood pulp and superabsorbent polymer particles wrapped with tissue paper. The tissue paper is colored a relatively deep blue. The topsheet is formed with openings through which the color of the tissue paper may be visually recognized.

Citation List

Patent Literature

[0003] PTL 1: JP H11-299825 A

Summary

Technical Problem

[0004] The above-mentioned PTL 1 describes visual recognition of the tissue paper from the side of the topsheet but makes no mention of visibility of the tissue paper from the side of the backsheet.

Solution to Problem

[0005] The present invention relates to a disposable wearing article having a longitudinal direction and a transverse direction and including a skin-facing side, a non-skin-facing side opposite to the skin-facing side, front and rear waist regions, a crotch region extending between these front and rear waist regions, a topsheet lying on the skin-facing side, a backsheet lying on the non-skin-facing side and an absorbent structure disposed between the top- and backsheets and lying at least in the crotch region, wherein the absorbent structure includes a liquid-absorbent core and a wrapping sheet wrapping the core.

In the disposable wearing article, the core has a first surface facing the topsheet and a second surface facing the backsheet, and the wrapping sheet includes a first wrapping sheet overlapping with the first surface and colored, and a second wrapping sheet overlapping with the second surface; and

the first wrapping sheet is visually recognizable through the topsheet and has, at least

in the crotch region, opposite extensions extending outward in the transverse direction beyond lateral edges of the core, so as to be visually recognizable through the backsheet.

Brief Description of Drawings

[0006] [fig.1]Fig. 1 is a perspective view illustrating a disposable diaper as one embodiment of a disposable wearing article in an assembled state.

[fig.2]Fig. 2 is a plan view illustrating the diaper in a flat-opened state as viewed from a skin-facing side.

[fig.3]Fig. 3 is an exploded perspective view of the diaper.

[fig.4]Fig. 4 is a sectional view taken along line IV-IV in Fig. 2.

[fig.5]Fig. 5 is an exploded perspective view of an absorbent structure.

[fig.6]Fig. 6 is a diagram illustrating the absorbent structure according to another embodiment.

[fig.7]Fig. 7 is a diagram illustrating a topsheet according to another embodiment.

[fig.8]Fig. 8 is a plan view illustrating the diaper in a flat-opened state as viewed from a non-skin-facing side.

Description of Embodiments

[0007] Referring by way of example to Fig. 1, a diaper 1 has a longitudinal direction Y and a transverse direction X and includes a front waist region 11, a rear waist region 12, a crotch region 13 extending between these front and rear waist regions 11, 12, front and rear ends 14, 15 extending in the transverse direction X and lateral edges 16 extending in the longitudinal direction Y. Fastening components 81 attached to the rear waist region 12 may be releasably engaged with a landing zone 82 attached to the front waist region 11 to obtain the pants-type diaper 1.

[0008] Referring by way of example to Fig. 2, the diaper 1 has an imaginary longitudinal center line P-P bisecting a dimension of the diaper 1 in the transverse direction X and an imaginary transverse center line Q-Q bisecting a dimension of the diaper 1 in the longitudinal direction Y wherein the diaper 1 is shaped symmetrically about the imaginary longitudinal center line P-P.

[0009] Referring by way of example to Fig. 3, the diaper 1 includes a liquid-permeable topsheet 20 lying on a skin-facing side, a liquid-impermeable backsheet 30 lying on a non-skin-facing side (garment-facing side), a liquid-absorbent structure 40 disposed between these top- and backsheets 20, 30 and a leakage-barrier sheet 50 disposed between the liquid-absorbent structure 40 and the backsheet 30. The topsheet 20 is formed on the skin-facing side with a pair of containment cuffs 60 spaced apart from each other in the transverse direction X. The topsheet 20 and the backsheet 30 cooperate with each other to define a chassis 10 according to this invention.

[0010] As a material for the topsheet 20, for example, a point-bonded fiber nonwoven fabric having a mass per unit area in a range of about 15 to about 35g/m^2, more preferably in a range of about 25 to about 30g/m^2 may be used. As a material for the backsheet 30, for example, a spun bonded/melt blown/spun bonded (SMS) fibrous nonwoven fabric or a spun bonded fibrous nonwoven fabric having a mass per unit area in a range of about 10 to about 30g/m^2 or a plastic film or a laminate of a plastic film and one of these fibrous nonwoven fabrics may be used.

[0011] As a material for the containment cuffs 60, for example, a spun bonded/melt blown/ spun bonded (SMS) fibrous nonwoven fabric having a mass per unit area in a range of about 10 to about 30g/m^2 may be used. Front and rear ends 61, 62 of the containment cuffs 60 are joined to the topsheet 20 with hot melt adhesive or the like (not shown). Outer edges 63 of the respective containment cuffs 60 are overlapped with lateral edges 33 of the backsheet 30 and joined thereto with hot melt adhesive or the like (not shown). Inner side edges 64 of the respective containment cuffs 60 overlap on the topsheet 20 but are not joined thereto so that these inner side edges 64 may be spaced away from the topsheet 20. The inner side edges 64 are provided with cuff elastics 65 extending in the longitudinal direction Y and contractibly secured under tension to the respective inner side edges 64. The cuff elastics 65 allow the inner side edges 64 to be spaced away upward from the topsheet 20 so as to come in to close contact with the wearer's skin and to contain bodily waste such as feces and/or urine inboard of the diaper 1.

[0012] The absorbent structure 40 occupies at least the crotch region 13 and, in this embodiment, extends across the crotch region 13 into the front and rear waist regions 11, 12. Referring to Fig. 5, the absorbent structure 40 includes a liquid-absorbent core 41 and first and second wrapping sheets 42, 43 covering the core 41. As the core 41, fluff wood pulp or superabsorbent polymer particles or a mixture thereof may be used. The core 41 may have a smaller dimension in the transverse direction X in the crotch region 13 than in the front and rear waist regions 11, 12. Specifically, the core 41 may have a pair of concavely curved lateral edge portions 45 in the crotch region 13.

[0013] The core 41 has a first surface 41a lying on the side of the topsheet 20, a second surface 41b lying on the side opposite to the first surface 41, i.e., on the side of the backsheet 30, front and rear ends 41c, 41d extending in the transverse direction X and lateral edges 41e extending in the longitudinal direction Y. A colored first wrapping sheet 42 is placed on the first surface 41a of the core 41. The first wrapping sheet 42 preferably has a rectangular shape and covers the first surface 41a of the core 41. A second wrapping sheet 43 preferably has a rectangular shape and covers the second surface 41b of the core 41. The dimension in the transverse direction X of the second wrapping sheet 43 is preferably larger than that of the core 41 and the first wrapping

sheet 42, respectively.

[0014] Lateral edges 42a of the first wrapping sheet 42 overlap the lateral edges 41e of the core 41 and the second wrapping sheet 43 covers the lateral edges 41e and the lateral edges 42a.

More specifically, lateral margins 43a of the second wrapping sheet 43 are folded along fold lines 43b defined along the lateral edges 41e and the lateral edges 43b and the lateral margins 43a of the second wrapping sheet 43 overlap the first wrapping sheet 42. In the concavely curved lateral edge portions 45 of the core 41, the first and second wrapping sheets 42, 43 extend outward beyond the lateral edges 41e of the core 41 and are put flat and joined together to define extensions 44 (See Fig. 3).

[0015] Referring to Figs. 3 and 4 by way of example, the leakage-barrier sheet 50 is disposed between the absorbent structure 40 and the backsheet 30. As a material for the leakage-barrier sheet 50, for example a liquid-impermeable and an air-impermeable plastic film may be used. The leakage-barrier sheet 50 has an area larger than that of the absorbent structure 40. With such dimensioning, it is possible for the leakage-barrier sheet 50 to prevent bodily fluids such as urine from leaking out of the diaper 1.

[0016] The leakage-barrier sheet 50 is provided on its side facing away from the backsheet 30 with first and second leg elastics 71, 72. In other words, the first and second leg elastics 71, 72 are disposed between the leakage-barrier sheet 50 and the containment cuffs 60 so as to extend in the longitudinal direction Y and are contractibly secured under tension. The first leg elastics 71 are secured to the leakage-barrier sheet 50 in the vicinities of lateral edges 53 so as to extend along these side edges 53 and the second leg elastics 72 are secured so as to overlap the extensions 44 of the absorbent structure 40. As the first and second leg elastics 71, 72, a plurality of string- or strand-like elastic materials may be used, for example.

[0017] The paired fastening components 81 which are formed of hook elements are attached to the rear waist region 12 by the intermediary of top tabs 83. These top tabs 83 are fixed between the containment cuffs 60 and the backsheet 30 and extend from the lateral edges 16 in the transverse direction X and the fastening components 81 are attached to the respective extensions. The landing zone 82 which is formed of loop elements is attached to the backsheet 30 in the front waist region 11. The fastening components 81 may be engaged with the landing zone 82 to couple the front and rear waist regions 11, 12 to each other to put the diaper 1 on the wearer's body.

[0018] In the diaper 1 having been described by way of example in the embodiment above, the first wrapping sheet 42, adapted to cover the core 41, is colored in green. More specifically, the first wrapping sheet 42 is indicated as L: 92.5, a: -16, b: 12 in the tabular statement by International Commission on Illumination L* a * b * color space (referred to hereunder as "CIE Lab"). A color difference delta Eab of the first wrapping

sheet 42, measured through the topsheet 20, is in a range of 8 to 50, preferably in a range of 10 to 30.

[0019] <Measuring method for color difference>

Color difference delta Eab was measured with the use of a Color Difference Meter (Minolta). Specifically, the color difference meter was calibrated using a Standard White Calibrating Plate (Y92.0, x0.3145, y0.3198) to obtain a blank value. The diaper 1 was placed on the Standard Color Difference Calibrating Plate, and a portion of the diaper 1 laminated with the first wrapping sheet 42 was measured through the intermediate of the topsheet 20, to obtain a sample value. Specifically, the sample value was measured in the vicinity of the intersection of the imaginary longitudinal center line P-P and the imaginary transverse center line Q-Q. The color difference delta Eab was calculated from a formula as follows:

Color difference delta Eab = sample value - blank value

In this regard, the sample value was obtained by measuring the portion of the first wrapping sheet 42 not having the containment cuff 60 overlapping thereon.

[0020] The first wrapping sheet 42 may be visually recognized through the topsheet 20 at least from a space in the transverse direction between a pair of the containment cuffs 60. In order that the first wrapping sheet 42 may be visually recognized through the topsheet 20, the total luminous transmittance of the topsheet 20 is in a range of about 30 to about 80%, preferably in a range of 40 to 60%. In this embodiment, the total luminous transmittance of the topsheet 20 is about 64%. The fiber density of the fibrous nonwoven fabric constituting the topsheet 20 is in a range of about 20 to about 75kg/m^3.

[0021] <Measuring method for total luminous transmittance>

Total luminous transmittance was measured in accordance with Japanese Industrial Standards JIS-K7105. Specifically, the sheet to be measured was cut into a piece having a width of 50mm and a length of 40mm, as a test piece. A color difference meter of flicker type Z-300A (manufactured by Nippon Denshoku Industries Co., Ltd.) was used and the test piece was clipped by a turbidimeter to measure the total luminous transmittance.

[0022] Upon urination in the diaper 1 as described above, urine permeates the topsheet 20, diffuses over the first wrapping sheet 42 and is absorbed by the core 41. Depending on various factors such as individual difference and the wearer's physical condition, urine may be slightly yellow and the core is sometimes colored thereby. However, the first wrapping sheet 42 is colored in green and the color difference delta Eab thereof is set to a value in a range of 8 to 50 according to this embodiment so that, even if the core 41 is colored with urine, such coloring may be made less noticeable when it is looked at from the side of the topsheet 20. Without such a countermeasure, the core 41 colored

by urine may sometimes provide the wearer with an unsanitary sense, but by making such coloring by urine less noticeable, a sense of cleanliness can be assured even after urination. In the color difference delta Eab, if the value a in the color difference delta Eab is plus (+), red color will become dominant, if the value a is minus (-), green color will become dominant, if the value b is plus (+), yellow color will become dominant and if the value b is minus (-), blue color will become dominant. To make the urine color less noticeable, at least the value a is desirably 0 or less and more preferably -15 or less.

If the color difference delta Eab is less than 8, it may not be possible to make the urine color unnoticeable and if the color difference delta Eab is larger than 50, some wearers may worry that the color of the first wrapping sheet 42 might transfer onto the wearers' skin.

[0023] The entire surface of the core 41 is covered with the first wrapping sheet 42 and can be visually recognized from the side of the topsheet 20 and therefore it is also possible to visually recognize the position and the size of the absorbent structure 40. By visually recognizing that the core 41 is present over a wide range, the wearer may have a sense of security against leakage. In this regard, it is desirable that the absorbent structure 40 is dimensioned to be larger in the transverse direction X than the spacing apart dimension of a pair of the containment cuffs 60 in the transverse direction X. By establishing such a dimensional relationship, the first wrapping sheet 42 may be visually recognized in the region defined between the containment cuffs 60 and thereby the wearer may be provided with a sense of security that the absorbent structure 40 is present over an adequately large range. In this regard, the portions of the first wrapping sheet 42 overlapping the containment cuffs 60 may be visually recognized or not.

[0024] In the opposite extensions 44 of the absorbent structure 40, the core 41 is not present and the first wrapping sheet 42 and the second wrapping sheet 43 are directly bonded to each other. These extensions 44 may be visually recognized from the non-skin-facing side (the side facing the wearer's garment). Specifically, the green color of the first wrapping sheet 42 is visually recognizable through the second wrapping sheet 43, the leakage-barrier sheet 50 and the backsheet 30. In this embodiment, the total luminous transmittance of the second wrapping sheet 43 may be about 86%, the total luminous transmittance of the leakage-barrier sheet 50 may be about 38% and the total luminous transmittance of the backsheet 30 may be about 80%. The measurement method of the total luminous transmittance for these sheets is the same as that for the topsheet 20.

[0025] With the diaper 1 put on the wearer's body, the extensions 44 come in contact with the wearer's thighs and may tend to dig into the wearer's inguinal regions more than

other regions of the diaper 1. The color difference delta Eab of these extensions 44 is set to a range of 8 to 50 and, in consequence, the extensions 44 on both sides of the diaper 1 appear as shaded when these extensions 44 are visually recognized from the non-skin-facing side. When lateral sides of the diaper 1 appear as shaded, a false sense is created as if the dimension in the transverse direction X is narrowed and the crotch region gives a neat impression. In this way, the appearance of the diaper 1 may be correspondingly improved.

[0026] The second leg elastics 72 are attached to the respective extensions 44 so as to extend along the respective extensions 44 so that these extensions 44 may be put in close contact with the wearer's crotch region. These extensions 44 put in close contact with the wearer's crotch region appear as if shaded and, consequently, create a compact and neat impression.

[0027] While the first wrapping sheet 42 is illustrated to cover the first surface 41a of the core 41, it is possible to design so that the first wrapping sheet 42 may extend from the first surface 41a across the lateral edges 41e to the second surface 41b. Furthermore, it is also possible to design so that both the first surface 41a and the second surface 41b may be fully covered with the first wrapping sheet 42. In this case, the green-colored area which is visually recognizable from the side of the wearer's garment (the non-skin-facing side) is enlarged.

[0028] Fig. 6 illustrates the absorbent structure 40 in another embodiment. The constituents other than the absorbent structure 40 are similar to those in the aforementioned diaper 1 and will not be described repetitively. According to this embodiment, a third wrapping sheet 46 is additionally layered between the first wrapping sheet 42 of the absorbent structure 40 and the topsheet 20. The third wrapping sheet 46 is bonded to at least one of the first wrapping sheet 42 and the topsheet 20 by bonding means such as hot melt adhesive (not shown). The third wrapping sheet 46 is dimensioned to be smaller than the first wrapping sheet 42 in the longitudinal direction Y as well as in the transverse direction X. In other words, the third wrapping sheet 46 has a surface area smaller than that of the first wrapping sheet 42. This third wrapping sheet 46 is located in the crotch region 13 so as to face the urination outlet. By locating the third wrapping sheet 46 so as to face the urination outlet, the urine color can be made more unnoticeable. The third wrapping sheet 46 may be dyed in a color different from or in the same color as that of the first wrapping sheet 42. The color difference delta Eab value may be set to be higher than that of the first wrapping sheet 42 and thereby the urine color may be made further unnoticeable. It is also possible to prepare the third wrapping sheet 46 which is the same as the first wrapping sheet 42 in shape as well as in size.

[0029] The core 41 of the absorbent structure 40 illustrated in Fig. 6 has a uniform

dimension in the transverse direction X in the rear waist region 12 and the crotch region 13 and this uniform dimension is smaller than the dimension in the transverse direction X of the front waist region 11. Consequently, the extensions 44 are formed in the rear waist region 12 and the crotch region 13. In this case, the dimension of the respective extensions 44 which are visually recognizable from the side of the diaper 1 facing the wearer's garment may be enlarged. When the diaper 1 is put on a baby of an earlier age in months, urine is apt to be absorbed on the side of the rear waist region 12 of the diaper 1, because such a baby spends much time in a recumbent posture. For this reason, it is desirable to use an absorbent structure 40 having a relatively large dimension in the transverse direction X in the rear waist region 12 and the extensions 45 in the crotch region 13. A baby of not such an early age in months, in contrast, spends much more time sitting up, and in consequence, urine is apt to be absorbed in the crotch region 13 of the diaper 1. For this reason, even when the diaper 1 illustrated in Fig. 6 having the core 41 of the absorbent structure 40 dimensioned in the transverse direction X to be smaller in the rear waist region 12 is put on such baby, urine should not leak. By use of such an absorbent structure 40, the diaper 1 may be made neat in appearance around the wearer's buttocks. Such an absorbent structure 40 may be used also in the diaper 1 in the aforementioned embodiment.

[0030] Fig. 7 illustrates another embodiment of the topsheet 20. As illustrated, it is possible to use a topsheet 20 formed with a plurality of ridges 21 and a plurality of grooves 22 each defined between each pair of the adjacent ridges 21 wherein both the ridges 21 and the grooves 22 may extend in the longitudinal direction Y or in the transverse direction X. Such a topsheet 20 may be, for example, subjected to continuous ejection of gas or air from a nozzle array arranged above the fibrous web of the topsheet 20 to form the grooves 22 in the regions directly exposed to the ejection and the ridges 21 in the region not directly exposed to the ejection. The pitch between each pair of adjacent ridges 21 and grooves 22 may be, for example, in a range of about 3mm to about 6mm. In such a topsheet 20, the constituent fibers in the regions directly exposed to the ejection are forcibly moved and the constituent fibers of the fibrous web are reoriented so that the fiber density in the grooves 22 may be lowered in comparison with the fiber density in the ridges 21. The quantity of gas or air ejection may be intermittently increased to form the grooves 22 with through-holes intermittently arranged in the longitudinal direction Y. In addition to such a method, the ridges 21 and the grooves 22 may be formed by water-jet treatment, steam-jet treatment, press working or gear working.

[0031] In the topsheet 20 as described just above, the ridges 21 correspond to first portions according to this invention having a total luminous transmittance lower than that in the grooves 22. In these ridges 21, the first wrapping sheet 42 is not visually recognizable

or hardly recognizable. In contrast, the grooves 22 correspond to second portions according to this invention having a total luminous transmittance higher than in the ridges 21. Consequently, the first wrapping sheet 42 can be visually recognized more easily in the grooves 22 than in the ridges 21. In such a topsheet 20, the ridges 21 come in to contact with the wearer's skin and the grooves 22 are kept out of contact with the wearer's skin. In this way, skin irritation due to contact may be alleviated and air-permeability may be improved.

[0032] Fig. 8 is a plan view of a diaper 1 as viewed from the non-skin-facing side. In the diaper 1, the first wrapping sheet 42 may be visually recognized through the topsheet 20 and the backsheet 30, respectively, and the first wrapping sheet 42 is colored in green. Probably, the user of this diaper 1 may imagine from this green color something green in nature, such as trees or a wood. Associating with such an image, the backsheet 30 is provided with illustrations 31 of natural objects such as flowers and leaves. When the user visually recognizes the illustration 31 from the non-skin-facing side, the user may have a nature-friendly image and experience a feeling of relaxation. It is also possible to provide a package for diapers 1 with the same illustration as illustration 31 or with an illustration associated with the illustration 31. Such an illustration on the package creates an appearance of design and thereby makes it possible to provide the aesthetically attractive diaper 1 and package thereof.

[0033] The disclosure of this invention having been described above may be summarized at least in aspects as follows.

The disposable wearing article 1 has a longitudinal direction Y and a transverse direction X and includes a skin-facing side, a non-skin-facing side opposite to the skin-facing side, front and rear waist regions 11, 12, a crotch region 13 extending between these front and rear waist regions 11, 12, a topsheet 20 lying on the skin-facing side, and a backsheet 30 lying on the non-skin-facing side and an absorbent structure 40 disposed between the top- and backsheets 20, 30 and lying at least in the crotch region 13. The absorbent structure 40 includes a liquid-absorbent core 41 and wrapping sheets covering the core 41.

[0034] In such a disposable wearing article 1, the core 41 has a first surface 41a facing the topsheet 20 and a second surface 41b facing the backsheet 30, and the wrapping sheet includes a first wrapping sheet 42 overlapping with the first surface 41a and colored and a second wrapping sheet 43 overlapping with the second surface 41b. The first wrapping sheet 42 is visually recognizable through the topsheet 20 and has, at least in the crotch region 13, opposite extensions 44 extending outward in the transverse direction X beyond the lateral edges 41e of the core 41 so as to be visually recognizable through the backsheet 30.

[0035] This invention may include at least the following embodiments.

(1) The color difference delta Eab of the first wrapping sheet measured through the intermediary of the topsheet is in a range of 8 to 50 relative to a standard white calibrating plate.

(2) The absorbent structure is formed so as to extend across the crotch region into the front and rear waist regions 11, 12 and the dimension of the core 41 in the transverse direction X of the crotch region 13 is smaller than that at least in the front waist region 11.

(3) The first wrapping sheet 42 is folded along fold lines extending in the longitudinal direction Y so as to cover the lateral edges 41e of the core 41 and the lateral margins 42a of the first wrapping sheet 42 lie on the second surface 41b of the core 41.

(4) A third wrapping sheet 46 dimensioned to be smaller than the first wrapping sheet 42 in the longitudinal direction Y as well as in the transverse direction X is placed on the first wrapping sheet 42.

(5) Leg elastics 72 are disposed between the absorbent structure 40 and the backsheet 30 so as to extend in the longitudinal direction Y and attached contractibly in the longitudinal direction Y, and at least part of the leg elastics 72 are disposed to overlap the extensions 44.

(6) The topsheet 20 includes a first portion 21 having relatively low total luminous transmittance and a second portion 22 having relatively high total luminous transmittance.

(7) The topsheet 20 has a plurality of the first portions 21 and a plurality of the second portions 22 each defined between each pair of the adjacent first portions 21.

[0036] According particularly to one or more embodiments of this invention, the first wrapping sheet adapted to cover the core of the absorbent structure is colored and visually recognizable through the topsheet. In this way, it is possible to make coloring of the core due to absorption of bodily fluids such as urine less noticeable after excretion such as urination. In addition, the first wrapping sheet has the extensions extending outward from the lateral edges of the core and these extensions are visually recognizable through the backsheet. In consequence, the first wrapping sheet is visually recognizable through the backsheet, i.e., from the outside of the wearing article.

[0037] The constituent elements of the disposable diaper 1, which is one example of a disposable wearing article, are not limited to those described in the specification but other various types of material widely used in the relevant technical field may be used without limitation. The terms "first", "second" and "third" used in the specification and Claims of this application are used merely to distinguish similar elements, similar positions, or other similar means.

[0038] This application claims the benefit of Japanese Application No. 2011-176389 the

entire disclosure of which is incorporated by reference herein.

Claims

[Claim 1] A disposable wearing article having a longitudinal direction and a transverse direction, the article including:
a skin-facing side;
a non-skin-facing side opposite to the skin-facing side;
front and rear waist regions;
a crotch region extending between these front and rear waist regions;
a topsheet lying on the skin-facing side;
a backsheet lying on the non-skin-facing side; and
an absorbent structure disposed between the top- and backsheets and lying at least in the crotch region wherein the absorbent structure includes a liquid-absorbent core and a wrapping sheet covering the core; and
optionally a leakage barrier sheet disposed between the liquid-absorbent structure and the backsheet; wherein:
the core has a first surface facing the topsheet and a second surface facing the backsheet, and the wrapping sheet includes a first wrapping sheet overlapping with the first surface and colored and a second wrapping sheet overlapping with the second surface; and
the first wrapping sheet is visually recognizable through the topsheet and has, at least in the crotch region, opposite extensions extending outward in the transverse direction beyond lateral edges of the core so as to be visually recognizable through the backsheet.

[Claim 2] The disposable wearing article defined by claim 1, wherein a color difference delta Eab of the first wrapping sheet measured through the intermediary of the topsheet is in a range of 8 to 50 relative to a standard white calibrating plate.

[Claim 3] The disposable wearing article defined by claim 1 or 2, wherein the absorbent structure is formed so as to extend across the crotch region into the front and rear waist regions and a dimension of the core in the transverse direction of the crotch region is smaller than that at least in the front waist region.

[Claim 4] The disposable wearing article defined by any one of claims 1 through 3, wherein the first wrapping sheet is folded along fold lines extending in the longitudinal direction so as to cover lateral edges of the core and lateral margins of the first wrapping sheet lie on the second surface of the core.

[Claim 5] The disposable wearing article defined by any one of claims 1 through 4, wherein a third wrapping sheet dimensioned to be smaller than the first wrapping sheet in the longitudinal direction as well as in the transverse direction is additionally placed on the first wrapping sheet.

[Claim 6] The disposable wearing article defined by any one of claims 1 through 5, wherein leg elastics are disposed between the absorbent structure and the backsheet so as to extend in the longitudinal direction and attached contractibly in the longitudinal direction.

[Claim 7] The disposable wearing article defined by any one of claims 1 through 6, wherein the topsheet includes a first portion having relatively low total luminous transmittance and second portion having relatively high total luminous transmittance.

[Claim 8] The disposable wearing article defined by claim 7, wherein the topsheet has a plurality of the first portions and a plurality of the second portions each defined between each pair of the adjacent first portions.