

Description

Title of Invention: LABEL

Technical Field

[0001]

- 5 The present invention relates to a label in which an upper base material and a lower base material are laminated and peelably attached, and more particularly to a technology for preventing the label from curling when the upper base material is peeled from the lower base material.

Background Art

10 [0002]

- Conventionally, in delivering a delivery package, a delivery form in which delivery information such as addresses and the names of the sender and the destination of the delivery package are written is used, and this form is attached to the delivery package, and the delivery package is delivered to
- 15 the destination according to the delivery information written in the delivery form.

[0003]

- In such a delivery form, a delivery slip is separably created, which is carried back by the carrier after the delivery package is delivered to the
- 20 destination. With the delivery form, when the delivery package is delivered to the destination, a receipt stamp is stamped on the delivery slip, and the delivery slip is separated from the delivery form and carried back by the carrier. Thus, the delivery slip is checked to conform that the delivery package was delivered to the destination.

25 [0004]

In the delivery form from which the delivery slip can be separated and

carried back as described above, for example, an attachment slip that remains attached to the delivery package even after the delivery package has been delivered to the destination is unpeelably attached and the delivery slip is peelably attached to a front surface of a base sheet having a back surface to which a tackifier is entirely applied. The delivery form is attached to the delivery package by the tackifier applied to the back surface of the base sheet. Then, when the delivery package is delivered to the destination, a receipt stamp is stamped on the delivery slip, the delivery slip is peeled off from the base sheet, and thus the delivery slip can be separated from the delivery form.

[0005]

The delivery slip needs to be attached to the base sheet with a certain degree of attaching force so as not to be accidentally peeled from the base sheet. In particular, in recent years, delivery information is often printed in the delivery form by a printer, and in that case, the delivery slip may be peeled from the base sheet when the delivery form is conveyed in the printer. Thus, an attaching force above a certain level is required.

[0006]

However, since a stronger force than the adhesive force of the delivery slip to the base sheet is required to peel off the delivery slip from the base sheet, when a stronger adhesive force is applied by the delivery slip to the base sheet, this produces a high concentration of stress to region of the delivery slip that is to be peeled, which may cause a large curl in the delivery slip when it is peeled off from the base sheet.

[0007]

Thus, Patent Literature 1 discloses a configuration in which the

original shipping slip and a receipt slip are peelably attached to a tag slip,
and in which the original shipping slip and the receipt slip are attached to the
tag slip only at a plurality of square regions provided on peripheral edges
thereof, and thus the original shipping slip and the receipt slip are prevented
5 from curling when peeled off from the tag slip. However, in such a
configuration, the original shipping slip and the receipt slip may be peeled off
from the tag slip when conveyed in a printer similarly to the above.

[0008]

Also, Patent Literature 2 discloses a configuration in which strip-
10 shaped adhesive layers for peelably bonding two sheets that constitute a
delivery form are provided in a plurality of rows extending in parallel in a
peeling direction at regular intervals. Further, Patent Literature 3 discloses a
configuration in which an adhesive layer is discontinuously formed to reduce
the adhesive force of a transfer seal. Such configurations prevent the two
15 sheets or the transfer seal from being peeled even when conveyed in a
printer, and provides a weaker adhesive force between the two sheets as
compared to a configuration in which an adhesive layer for peelably bonding
two sheets that constitute a delivery form is provided on the entire surface of
either of the two sheets, thereby preventing a curl from being formed when
20 the two sheets are peeled.

Citation List

Patent Literature

[0009]

25 Patent Literature 1: JP10-147078A

Patent Literature 2: JP2010-264611A

Patent Literature 3: JP2000-3134A

Summary of Invention

Technical Problem

5 [0010]

However, in the configuration disclosed in Patent Literature 2, when the two sheets are peeled, all the adhesive layers in the plurality of rows are present in the peeled region where the two sheets are to be peeled. Thus, to some degree, the adhesive force of the adhesive layer causes a high
10 amount of stress to concentrate in the region, which still causes the formation of a curl when the two sheets are peeled.

[0011]

Also, in the configuration disclosed in Patent Literature 3, in some directions in which the transfer seal is peeled, most of the adhesive layers
15 that were discontinuously formed are present in the peeled region where the transfer seal is to be peeled, which causes the formation of a curl similar to the above description.

[0012]

The purpose of the present invention is to solve the problems in the
20 conventional technologies, as described above, and its object is to provide a label in which an upper base material and a lower base material are laminated and peelably attached, capable of preventing a curl from being formed when the upper base material is peeled off from the lower base material.

25

Solution to Problem

[0013]

To achieve the object, the present invention provides a label in which an upper base material and a lower base material are laminated and peelably attached, and a release mount is peelably attached by a tacky layer
5 laminated on a surface of the lower base material opposite to a surface joining the upper base material, wherein;

the upper base material and the lower base material are peelably attached by a plurality of pseudo adhesive structures provided like islands between the upper base material and the lower base material,

10 the plurality of pseudo adhesive structures are provided so that, for a line group passing through at least one of the plurality of pseudo adhesive structures among lines extending from a peeling start end of the upper base material, from the lower base material toward a peeling finish end opposite to the peeling start end, the pseudo adhesive structure is present on at least
15 one of the lines, but not all the lines that constitute the line group on any line perpendicular to the line group.

[0014]

In the present invention configured as described above, the plurality of pseudo adhesive structures for peelably attaching the upper base material
20 and the lower base material are provided like islands so that, for the line group passing through at least one of the plurality of pseudo adhesive structures among the lines extending from the peeling start end of the upper base material from the lower base material toward the peeling finish end opposite to the peeling start end, the pseudo adhesive structure is present
25 on at least one of the lines, but not all the lines that constitute the line group on any line perpendicular to the line group. Thus, if the release mount is

peeled from the lower base material and attached to a delivery package or the like by the tacky layer, and then the upper base material is peeled off from the lower base material from the peeling start end toward the peeling finish end, for the line group described above, the pseudo adhesive

5 structures will not be present on all the lines that constitute the line group and the pseudo adhesive structures will be present on only several lines that constitute the line group in a peeled region where the upper base material is to be peeled from the lower base material. Thus, in the peeled region, the adhesive force of the upper base material that adheres the lower base
10 material to it, via the pseudo adhesive structures, is weak. This allows the upper base material to be peeled off from the lower base material with low resistance, thus prevents concentration of high stress in the peeled region, and prevents formation of a curl when the upper base material is peeled from the lower base material.

15 [0015]

Also, in a label in which an upper base material and a lower base material are laminated and peelably attached by pseudo adhesive structures, and a release mount is peelably attached by a tacky layer laminated on a surface of the lower base material opposite to a surface that joins the upper
20 base material,

the pseudo adhesive structures are intermittently provided in each of a plurality of linear adhesive rows that extend in parallel, from a peeling start end of the upper base material, from the lower base material toward a peeling finish end opposite to the peeling start end so that the pseudo
25 adhesive structure are not present in at least one adhesive row on any line perpendicular to the adhesive rows.

[0016]

In the present invention configured as described above, the pseudo adhesive structures for peelably attaching the upper base material to the lower base material are intermittently provided in each of the plurality of linear adhesive rows that extend in parallel, from the peeling start end of the upper base material, from the lower base material toward the peeling finish end opposite to the peeling start end so that the pseudo adhesive structure are not present in at least one adhesive row on any line perpendicular to the adhesive rows. Thus, if the release mount is peeled from the lower base material and attached to a delivery package or the like by the tacky layer, and then the upper base material is peeled off from the lower base material from the peeling start end toward the peeling finish end, all the pseudo adhesive structures in the plurality of adhesive rows will not be present but only several pseudo adhesive structures in the plurality of adhesive rows are present in the peeled region where the upper base material is to be peeled from the lower base material. Thus, in the peeled region, the adhesive force of the upper base material that adheres the lower base material to it, via the pseudo adhesive structures, is weak. This allows the upper base material to be peeled from the lower base material with a low resistance, thus prevents concentration of high stress in the peeled region, and prevents formation of curl when the upper base material is peeled from the lower base material.

Advantageous Effects of Invention

[0017]

According to the present invention, the plurality of pseudo adhesive structures for peelably attaching the upper base material to the lower base

material are provided like islands so that, for the line group that passes through at least one of the plurality of pseudo adhesive structures among the lines that extend from the peeling start end of the upper base material, from the lower base material toward the peeling finish end opposite to the peeling start end, the pseudo adhesive structure is present on at least one of the lines, but not all the lines that constitute the line group on any line perpendicular to the line group. Thus, in the peeled region where the upper base material is to be peeled from the lower base material, the adhesive force of the upper base material that adheres the lower base material to it, via the pseudo adhesive structures, is weak. This allows the upper base material to be peeled from the lower base material with low resistance, and thus prevents formation of a curl when the upper base material is peeled from the lower base material.

Brief Description of Drawings

[0018]

[Figure 1a] Figure 1a shows a first embodiment of a label according to the present invention viewed from a front surface.

[Figure 1b] Figure 1b is an A-A' sectional view in Figure 1a.

[Figure 1c] Figure 1c shows shapes of adhesive layers in a delivery slip in Figures 1a and 1b.

[Figure 2a] Figure 2a illustrates a method of use of a delivery form in Figures 1a to 1c.

[Figure 2b] Figure 2b illustrates a method of use of the delivery form in Figures 1a to 1c.

[Figure 3] Figure 3 illustrates operation of the delivery form in Figures 1a to

1c.

[Figure 4a] Figure 4a shows a second embodiment of a label according to the present invention viewed from a front surface.

[Figure 4b] Figure 4b is an A-A' sectional view in Figure 4a.

5 [Figure 4c] Figure 4c shows shapes of adhesive layers in a delivery slip in Figures 4a and 4b.

[Figure 5a] Figure 5a illustrates a method of use of a delivery form in Figures 4a to 4c.

10 [Figure 5b] Figure 5b illustrates a method of use of the delivery form in Figures 4a to 4c.

[Figure 6] Figure 6 illustrates operation of the delivery form in Figures 4a to 4c.

[Figure 7a] Figure 7a shows a different embodiment of a label according to the present invention.

15 [Figure 7b] Figure 7b shows a different embodiment of a label according to the present invention.

[Figure 7c] Figure 7c shows a different embodiment of a label according to the present invention.

20 Description of Embodiments

[0019]

Now, embodiments of the present invention will be described with reference to the drawings.

[0020]

25 (First Embodiment)

Figure 1a shows a first embodiment of a label according to the

present invention viewed from a front surface. Figure 1b is an A-A' sectional view in Figure 1a. Figure 1c shows shapes of adhesive layers 40 in delivery slip 11 in Figures 1a and 1b.

[0021]

5 As shown in Figures 1a to 1c, this embodiment is label type delivery form 1 in which upper base material 10 and lower base material 20 that have the same shape are laminated and peelably attached to release mount 30.

[0022]

 Upper base material 10 is, for example, made of thermal paper, and
10 includes delivery slip 11 and attachment slip 12. Slit 13 is formed in a boundary between delivery slip 11 and attachment slip 12, and delivery slip 11 and attachment slip 12 are in contact with each other via slit 13. Delivery slip 11 and attachment slip 12 include delivery information indication regions 14a, 14b, respectively, in which delivery information such as addresses and
15 names of a sender and a destination of a delivery package to which delivery form 1 is attached is printed or written by print layer 17 that is formed on upper base material 10. Delivery slip 11 further includes stamp region 15 on which a receipt stamp is stamped when the delivery package is delivered to the destination. Upper base material 10 may be inkjet printing paper, high-
20 quality paper 70 kg, or the like, other than thermal paper. A film sheet may be used as long as it has a printable surface.

[0023]

 Shrinking layer 60 and release layer 50 are laminated on an entire surface of a region that forms delivery slip 11 in a surface that attaches
25 upper base material 10 to lower base material 20. Shrinking layer 60 is laminated by applying ultraviolet curable ink, an ultraviolet curable medium,

or the like to a surface that attaches upper base material 10 to lower base material 20. Release layer 50 is laminated by applying a typical release varnish such as an ultraviolet curable varnish to the entire surface of shrinking layer 60 laminated on upper base material 10. The release varnish
5 may contain silicone to adjust release strength by release layer 50 depending on content of the silicone. Also, a print layer may be formed on the surface that attaches upper base material 10 to lower base material 20, and shrinking layer 60 may be laminated on the print layer. Further, a print layer may be formed on shrinking layer 60, and release layer 50 may be
10 laminated on the print layer. Shrinking layer 60 is provided for preventing formation of a curl when delivery slip 11 is peeled from lower base material 20, and is not essential in the present invention. Thus, descriptions on a configuration of shrinking layer 60 will be omitted below.

[0024]

15 Lower base material 20 may be, for example, high quality paper 35 kg, or the like. Print layer 21 is formed on the entire surface that attaches lower base material 20 to upper base material 10, and medium layer 80 is formed on print layer 21. Medium layer 80 is made of a typical medium containing a titanium oxide or the like. There are media for liquid ink and
20 paste ink, which are added to ink for adjusting density of ink and giving a gloss to ink, and have a waterproof property when used alone. In that sense, not limited to the medium, but any materials having a waterproof property such as a varnish or a fluorine coating agent may be used. Adhesive layers 40 are laminated on medium layer 80. Adhesive layers 40
25 are laminated on the entire surface of medium layer 80 in the region that forms attachment slip 12, but adhesive layers 40 are laminated in a

predetermined shape in the region that forms delivery slip 11. In a region of lower base material 20 facing delivery slip 11, adhesive layers 40 are provided to have a fixed width on peripheral edges that are four sides of delivery slip 11 on lower base material 20, and also that are intermittently
5 provided like islands at regular pitches with the same shape in each of a plurality of linear adhesive rows 41a to 41i extending in parallel from peeling start end 19a at which peeling is started when the region that forms delivery slip 11 of upper base material 10 is peeled off from lower base material 20 toward peeling finish end 19b opposite to peeling start end 19a and at which
10 peeling is finished. Specifically, in the linear adhesive rows 41a to 41i, adhesive layers 40 each having a rectangular shape with a long side in the direction extending in parallel from peeling start end 19a toward peeling finish end 19b are arranged at regular intervals. Positions of adhesive layers 40 in adhesive rows 41a to 41i are irregular among adhesive rows 41a to 41i
15 so that adhesive layer 40 is not present in at least one adhesive row on any line that is perpendicular to adhesive rows 41a to 41i. For example, on a dash-dot in Figure 1c that is perpendicular to adhesive rows 41a to 41i, adhesive layers 40 are present only in adhesive rows 41a, 41c, 41d, 41f, 41g among adhesive rows 41a to 41i and adhesive layers 40 are not present in
20 adhesive layers 41b, 41e, 41h, 41i. Also, peeling start end 19a is a corner of a side at which peeling is started when the region that forms delivery slip 11 of upper base material 10 is peeled off from lower base material 20, and peeling finish end 19b is a corner at which peeling is finished, located opposite to peeling start end 19a on a diagonal line. Adhesive layer 40 is
25 laminated by applying, for example, an aqueous emulsion adhesive to a surface of medium layer 80 that is laminated on lower base material 20.

Adhesive layer 40 is not limited to this, but may be formed of other adhesives (bonding by solidification) or tackifiers (bonding while maintaining viscosity), such as a mixture of a particulate filler such as starch or silica into natural latex. A pressure-sensitive adhesive may be used that provides an adhesive
5 force by applying pressure. When the aqueous emulsion adhesive is used as adhesive layer 40, medium layer 80 prevents moisture from penetrating to lower base material 20. Also, tacky layer 70 is laminated on the entire surface of lower base material 20 that is opposite to a surface that joins upper base material 10 by applying a tackifier, and tacky layer 70 peelably
10 attaches lower base material 20 to release mount 30. The number of the adhesive rows is not limited to the above, but is determined according to the size of delivery slip 11, the adhesive force of adhesive layer 40, or the like.
[0025]

Upper base material 10 and lower base material 20 that are
15 configured as described above are laminated so that the surface of upper base material 10 on which release layer 50 and shrinking layer 60 are laminated and the surface of lower base material 20 on which adhesive layer 40 is laminated face each other, and upper base material 10 and lower base material 20 are attached to each other by adhesive layer 40. The region of
20 upper base material 10 that forms delivery slip 11 and lower base material 20 are peelably attached to each other by a pseudo adhesive structure. The pseudo adhesive structure includes adhesive layers 40 and release layer 50, adhesive layers 40 attaches upper base material 10 to lower base material 20, and then upper base material 10 is manually peeled off from lower base
25 material 20 by the action of release layer 50. Thus, the pseudo adhesive structures that perform pseudo bonding of upper base material 10 to lower

base material 20 are provided on the peripheral edges of the region that forms delivery slip 11, and are intermittently provided, inside the peripheral edges, in each of the plurality of linear adhesive rows 41a to 41i that extend in parallel from peeling start end 19a at which peeling is started when the region of upper base material 10 that forms delivery slip 11 is peeled off from lower base material 20 toward peeling finish end 19b that is opposite to peeling start end 19a and at which peeling is finished, and the pseudo adhesive structure is not present in at least one adhesive rows on any line that is perpendicular to adhesive rows 41a to 41i. In other words, inside the peripheral edges of the region that forms delivery slip 11, if a line is drawn from peeling start end 19a at which peeling is started when the region of upper base material 10 that forms delivery slip 11 is peeled off from lower base material 20 toward peeling finish end 19b that is opposite to peeling start end 19a and at which peeling is finished, for a line group that includes adhesive rows 41a to 41i that pass through the pseudo adhesive structures among the lines, the pseudo adhesive structure are present in at least one of the line rows that constitute the line group and the pseudo adhesive structures are not present in all line rows 41a to 41i that constitute the line group on any line that is perpendicular to the line group. Adhesive layer 40 is attached to the entire surface of the region that forms attachment slip 12. When the aqueous emulsion adhesive is used as adhesive layer 40, upper base material 10 is attached to lower base material 20 in this manner, and thus release layer 50 and shrinking layer 60 prevent moisture from penetrating to upper base material 10. The adhesives 40 are preferably in the form of dots having a screen density of 50% to 100% and a width of about 2 to 6 mm on the peripheral edges of delivery slip 11 on lower base

material 20. Such a configuration can prevent peeling from the peripheral edges during printing or delivery.

[0026]

A method of use of delivery form 1 that is configured as described
5 above will be described below.

[0027]

Figures 2a and 2b illustrate the method of use of delivery form 1 in
Figures 1a to 1c.

[0028]

10 In delivery form 1 configured as described above, first, delivery
information is printed or written in delivery information indication regions 14a,
14b provided in delivery slip 11 and attachment slip 12, respectively, of upper
base material 10, and as shown in Figure 2a, delivery form 1 is peeled from
release mount 30 and attached to delivery package 2 by tacky layer 70. At
15 this time, in the case where the delivery information is printed in delivery
information indication regions 14a, 14b by a printer, delivery form 1 is not
limited to one delivery form that is supplied to the printer as a single piece as
shown in Figures 1a to 1c, but a plurality of delivery forms 1 may be attached
in one row to continuous release mount 30 that is folded by perforation 31,
20 and that is supplied to the printer. Continuous release mount 30 may be
rolled. The pseudo adhesive structures that perform pseudo bonding
between upper base material 10 and lower base material 20 are provided on
the peripheral edges of the region that forms delivery slip 11, thereby
preventing the region of upper base material 10 that forms delivery slip 11
25 from being unnecessarily peeled from lower base material 20 in the printer.

[0029]

Delivery package 2 to which delivery form 1 is attached is delivered to the destination of delivery package 2 according to delivery information 18a, 18b printed or written in information indication regions 14a, 14b.

[0030]

5 Then, when delivery package 2 is delivered to the destination, a receipt stamp is stamped on stamp region 15 in delivery slip 11, and then delivery slip 11 is separated from delivery form 1.

[0031]

10 The region of upper base material 10 that forms delivery slip 11 is attached to lower base material 20 by adhesive layer 40, but can be peeled off from lower base material 20 and separated from delivery form 1 because release layer 50 is laminated on the attachment surface of the region. As shown in Figure 2a, the region of upper base material 10 that forms delivery slip 11 is peeled from peeling start end 19a.

15 [0032]

 When the region of upper base material 10 that forms delivery slip 11 is peeled from peeling start end 19a, as shown in Figure 2b, notification information 21a that is included in print layer 21 that is laminated on lower base material 20 becomes visible. Then, the peeled region reaches peeling
20 finish end 19b, and the region of upper base material 10 that forms delivery slip 11 is completely peeled off from lower base material 20 and carried back by the carrier.

[0033]

 Now, the operation of delivery form 1 described above will be
25 described.

[0034]

Figure 3 illustrates the operation of delivery form 1 in Figures 1a to 1c.
[0035]

In delivery form 1 in Figures 1a to 1c, as described above, the region of upper base material 10 that forms delivery slip 11 is peeled off from lower base material 20 from peeling start end 19a toward peeling finish end 19b. Thus, as shown in Figure 3, peeled region 3 where the region of upper base material 10 that forms delivery slip 11 is to be peeled off from lower base material 20 is perpendicular to a line that extend from peeling start end 19a toward peeling finish end 19b. Here, adhesive layers 40 that attach upper base material 10 to lower base material 20 are intermittently provided in each of the plurality of linear adhesive rows 41a to 41i that extend in parallel from peeling start end 10a toward peeling finish end 19b, and adhesive layer 40 is not present in at least one adhesive row on any line that is perpendicular to adhesive rows 41a to 41i as described above. Thus, when the region of upper base material 10 that forms delivery slip 11 is peeled off from lower base material 20, all of adhesive layers 40 in adhesive rows 41a to 41i are not present but only several of adhesive layers 40 in adhesive rows 41a to 41i are present in peeled region 3 where the region of upper base material 10 that forms delivery slip 11 is to be peeled off from lower base material 20. Specifically, when peeled region 3 is located as shown in Figure 3, adhesive layers 40 are present only in adhesive rows 41a, 41b, 41e, 41f, 41g and adhesive layers 40 are not present in adhesive layers 41c, 41d, 41h, 41i among adhesive rows 41a to 41i in peeled region 3.

[0036]

Thus, a somewhat strong overall adhesive force of the region of upper base material 10, that forms delivery slip 11, is provided and attaches upper

base material 10 to lower base material 20, while a weak adhesive force is provided only in peeled region 3 where the region of upper base material 10 that forms delivery slip 11 is to be peeled off from lower base material 20.

Thus, when the region of upper base material 10 that forms delivery slip 11 is peeled off from lower base material 20, low stress is applied to peeled region 3 at one time, thereby preventing formation of a curl when the region of upper base material 10 that forms delivery slip 11 is peeled off from lower base material 20.

[0037]

10 In this embodiment, adhesive layers 40 in adhesive rows 41a to 41i are provided with the same shape at the same pitch, and the positions of adhesive layers 40 are irregular among adhesive rows 41a to 41i, and thus adhesive layer 40 is not present in at least one adhesive row on any line that is perpendicular to adhesive rows 41a to 41i. However, adhesive layers 40 in adhesive rows 41a to 41i may have different shapes or may be provided at different pitches, and thus adhesive layer 40 may not be present in at least one adhesive row on any line perpendicular that is to adhesive rows 41a to 41i.

[0038]

20 In this embodiment, adhesive layers 40 are provided with a fixed width on the peripheral edges of the region of lower base material 20 facing delivery slip 11, however, adhesive layers 40 may have different widths to further prevent formation of a curl when delivery slip 11 is peeled from lower base material 20. For example, when adhesive layers 40 in regions along two sides that include peeling start end 19a have width a, adhesive layers 40 near peeling finish end 19b in regions along the other two sides have width

b, and adhesive layers 40 in the other regions along these two sides have width c, the relationship of the widths are determined to be $a > c > b$. Thus, stress applied to the peripheral edges of delivery slip 11 when delivery slip 11 is peeled from lower base material 20 gradually decreases from peeling start end 19a toward peeling finish end 19b to prevent a curl from being formed.

[0039]

(Second Embodiment)

Figure 4a shows a second embodiment of a label according to the present invention viewed from a front surface. Figure 4b is an A-A' sectional view in Figure 4a. Figure 4c shows a shape of adhesive layer 140 in delivery slip 111 in Figures 4a and 4b.

[0040]

As shown in Figures 4a to 4c, this embodiment is label type delivery form 101 in which upper base material 110 and lower base material 120 that have the same shape are laminated and peelably attached to release mount 130.

[0041]

Upper base material 110 is, for example, made of a thermal paper, and includes delivery slip 111 and attachment slip 112. Slit 113 is formed in a boundary between delivery slip 111 and attachment slip 112, and delivery slip 111 and attachment slip 112 are in contact with each other via slit 113. Delivery slip 111 and attachment slip 112 include delivery information indication regions 114a, 114b, respectively, in which delivery information such as addresses and names of the sender and the destination of the delivery package to which delivery form 101 is attached is printed or written

in print layer 117 that is formed on upper base material 110. Delivery slip 111 further includes stamp region 115 on which a receipt stamp is stamped when the delivery package is delivered to the destination. Upper base material 110 may be inkjet printing paper, high-quality paper 70 kg, or the like, except for than thermal paper. A film sheet may be used as long as it has a printable surface.

[0042]

Shrinking layer 160 and release layer 150 are laminated on the entire surface of a region that forms delivery slip 111 in a surface that attaches upper base material 110 to lower base material 120. Shrinking layer 160 is laminated by applying ultraviolet curable ink, an ultraviolet curable medium, or the like to the surface that attaches upper base material 110 to lower base material 120. Release layer 150 is laminated by applying a typical release varnish such as an ultraviolet curable varnish to the entire surface of shrinking layer 160 that laminated on upper base material 110. The release varnish may contain silicone to adjust release strength by release layer 150 depending on content of the silicone. Also, a print layer may be formed on the surface that attaches upper base material 110 to lower base material 120, and shrinking layer 160 may be laminated on the print layer. Further, a print layer may be formed on shrinking layer 160, and release layer 150 may be laminated on the print layer. Shrinking layer 160 is provided to prevent formation of a curl when delivery slip 111 is peeled off from lower base material 120, and is not essential in the present invention. Thus, descriptions on the configuration of shrinking layer 160 will be omitted below.

[0043]

Lower base material 120 may be, for example, high quality paper 35

kg, or the like. Print layer 121 is formed on the entire attachment surface of lower base material 120 to upper base material 110, and medium layer 180 is formed on print layer 121. Medium layer 180 as described in the first embodiment may be used. Adhesive layers 140 are laminated on medium

5 layer 180. Adhesive layers 140 are laminated on the entire surface of medium layer 180 in the region that forms attachment slip 112, but they are laminated in a predetermined shape in the region that forms delivery slip 111. In a region of lower base material 120 that faces delivery slip 111, adhesive layers 140 are provided to have a fixed width on peripheral edges

10 of lower base material 120. In a region inside the peripheral edges, a plurality of grid cells (shown by broken lines in Figure 4c) are provided to be tilted by a slight angle with respect to the outline of delivery slip 111, and adhesive layers 140 are provided like islands and each have a rectangular shape with a long side that extends in parallel from one corner in the

15 respective grid cells toward peeling finish end 119b where peeling is finished when the region of upper base material 110 that forms delivery slip 111 is peeled off from lower base material 120. Thus, adhesive layers 140 are provided so that, for a line groups that include lines 141a to 141q (shown by a dash-dot in Figure 4c) that pass through at least one adhesive layer 140

20 among lines that extend from peeling start end 119a at which peeling is started when the region of upper base material 110 that forms delivery slip 111 is peeled off from lower base material 120 toward peeling finish end 119b that is opposite to peeling start end 119a, and at which peeling is finished, adhesive layer 140 is present on at least one of lines 141a to 141q,

25 but not all lines 141a to 141q on any line perpendicular to the line group. For example, on a dash-dot-dot in Figure 4c perpendicular to the line group

including lines 141a to 141q, adhesive layers 140 are present only on lines 141a, 141c, 141h, 141k, 141p and adhesive layers 140 are not present on adhesive layers 141b, 141d to 141g, 141i, 141j, 141l to 141o, 141q among lines 141a to 141q. Also, peeling start end 119a is a corner of a side at
 5 which peeling is started when the region that forms delivery slip 111 of upper base material 110 is peeled from lower base material 120, and peeling finish end 119b is a corner at which peeling is finished and is located opposite to peeling start end 119a on a diagonal line. Adhesive layer 140 as described in the first embodiment may be used. Also, tacky layer 170 is laminated on
 10 the entire surface of lower base material 120 that is opposite to a surface that joins upper base material 110 by applying a tackifier, and tacky layer 170 peelably attaches lower base material 120 to release mount 130. The number of the grids is not limited to the above, but is determined according to the size of delivery slip 111, the adhesive force of adhesive layer 140, or
 15 the like.

[0044]

Upper base material 110 and lower base material 120 that are configured as described above are laminated so that the surface of upper base material 110 on which release layer 150 and shrinking layer 160 are
 20 laminated, and so that the surface of lower base material 120 on which adhesive layer 140 is laminated face each other, and upper base material 110 and lower base material 120 are attached by adhesive layer 140. The region of upper base material 110 that forms delivery slip 111 and lower base material 120 are peelably attached by a pseudo adhesive structure.
 25 The pseudo adhesive structure includes adhesive layers 140 and release layer 150, adhesive layers 140 attach upper base material 110 to lower base

material 120, and then upper base material 110 is manually peeled off from lower base material 120 by the action of release layer 150. Thus, the pseudo adhesive structures that perform pseudo bonding of upper base material 110 to lower base material 120 are provided on the peripheral edges of the region that forms delivery slip 111, and are provided, inside the peripheral edges, so that for the line group including lines 141a to 141q passing through at least one pseudo adhesive structure among the lines extending from peeling start end 119a, at which peeling is started when the region of upper base material 110 that forms delivery slip 111 is peeled off from lower base material 120 toward peeling finish end 119b opposite to peeling start end 119a and at which peeling is finished, the pseudo adhesive structure are present on at least one of lines 141a to 141q and the pseudo adhesive structures are not present on all lines 141a to 141q on any line perpendicular to the line group. Adhesive layer 140 is attached to the entire surface of the region that forms attachment slip 112. When an aqueous emulsion adhesive is used as adhesive layer 140, upper base material 110 and lower base material 120 are attached in this manner, and thus release layer 150 and shrinking layer 160 prevent moisture from penetrating into upper base material 110.

[0045]

A method of use of delivery form 101 configured as described above will be described below.

[0046]

Figures 5a and 5b illustrate the method of use of delivery form 101 in Figures 4a to 4c.

[0047]

In delivery form 101 that is configured as described above, first, delivery information is printed or written in delivery information indication regions 114a, 114b provided in delivery slip 111 and attachment slip 112, respectively, of upper base material 110, and as shown in Figure 5a, delivery
5 form 101 is peeled off from release mount 130 and attached to delivery package 102 by tacky layer 170. At this time, in the case where the delivery information is printed in delivery information indication regions 114a and 114b by a printer, delivery form 101 is not limited to one delivery form supplied to the printer as a single piece as shown in Figures 4a to 4c, but a
10 plurality of delivery forms 101 may be attached in one row to continuous release mount 130 that is folded by perforation 131, and supplied to the printer as in the first embodiment. Continuous release mount 130 may be rolled. The pseudo adhesive structures that perform pseudo bonding of upper base material 110 to lower base material 120 are provided on the
15 peripheral edges of the region that forms delivery slip 111, thereby preventing the region of upper base material 110 that forms delivery slip 111 from being unnecessarily peeled from lower base material 120 in the printer.
[0048]

Delivery package 102 to which delivery form 101 is attached is
20 delivered to the destination of delivery package 2 according to delivery information 118a, 118 and printed or written in information indication regions 114a, 114b.
[0049]

Then, when delivery package 102 is delivered to the destination, a
25 receipt stamp is stamped on stamp region 115 in delivery slip 111, and then delivery slip 111 is separated from delivery form 101.

[0050]

The region of upper base material 110 that forms delivery slip 111 is attached to lower base material 120 by adhesive layer 140, but can be peeled off from lower base material 120 and separated from delivery form 101 because release layer 150 is laminated on the attachment surface of the region. As shown in Figure 5a, the region of upper base material 110 that forms delivery slip 111 is peeled from peeling start end 119a.

[0051]

When the region of upper base material 110 that forms delivery slip 111 is peeled from peeling start end 119a, as shown in Figure 5b, notification information 121a that is included in print layer 121 that is laminated on lower base material 120 becomes visible. Then, the peeled region reaches the peeling finish end 119b, and the region of upper base material 110 that forms delivery slip 111 is completely peeled from lower base material 120 and carried back by the carrier.

[0052]

Now, an operation of delivery form 101 described above will be described.

[0053]

Figure 6 illustrates the operation of delivery form 101 in Figures 4a to 4c.

[0054]

In delivery form 101 in Figures 4a to 4c, as described above, the region of upper base material 110 that forms delivery slip 111 is peeled from lower base material 120 from peeling start end 119a toward peeling finish end 119b. Thus, as shown in Figure 6, the peeled region 103 where the

region of upper base material 110 that forms delivery slip 111 is to be peeled off from lower base material 120 is perpendicular to a line extending from peeling start end 119a toward peeling finish end 119b. Here, as described above, adhesive layers 140 that attach upper base material 110 to lower

5 base material 120 are provided so that for the line group that include lines 141a to 141q that pass through at least one adhesive layer 140 among the lines that extend from peeling start end 119a toward peeling finish end 119b, adhesive layer 140 is present on at least one of lines 141a to 141q and adhesive layers 140 are not present on all lines 141a to 141q on any line

10 perpendicular to the line group. Thus, when the region of upper base material 110 that forms delivery slip 111 is peeled off from lower base material 120, adhesive layers 140 are not present on all of lines 141a to 141q but adhesive layers 140 are present on only several of lines 141a to 141q are present in the peeled region 103 where the region of upper base

15 material 110 that forms delivery slip 111 is to be peeled off from lower base material 120. Specifically, when the peeled region 103 is located as shown in Figure 6, adhesive layers 140 are present only on lines 141a, 141f, 141k and adhesive layers 140 are not present on adhesive layers 141b to 141e, 141g to 141q among lines 141a to 141q in the peeled region 103.

20 [0055]

Thus, a somewhat strong overall adhesive force of the region of upper base material 110, that forms delivery slip 111, is provided and attaches upper base material 110 to lower base material 120, while a weak adhesive force is provided only in the peeled region 103 where the region of upper

25 base material 110 that forms delivery slip 111 is to be peeled off from lower base material 120. Thus, when the region of upper base material 110 that

forms delivery slip 111 is peeled off from lower base material 120, low stress is applied to peeled region 103 at one time, thereby preventing formation of a curl when the region of upper base material 110 that forms delivery slip 111 is peeled from lower base material 120.

5 [0056]

In this embodiment, inside the peripheral edges in the region of lower base material 120 that faces delivery slip 111, adhesive layers 140 are provided like islands so as to extend in parallel from one corner in each of the plurality of grid cells toward peeling finish end 119, but the extending
10 direction of adhesive layer 140 is not limited to this. However, the direction is preferably within 45 degrees with respect to the line that extends from peeling start end 119a toward peeling finish end 119b.

[0057]

(Other Embodiments)

15 Figures 7a to 7c show other embodiments of a label according to the present invention, and show different examples of adhesive layer 40 of delivery slip 11 in the configuration shown in Figures 1a to 1c.

[0058]

The shape of each adhesive layer 40 of delivery slip 11 in delivery
20 form 1 in Figures 1a to 1c is not limited to a shape that has a predetermined length in each of adhesive rows 41a to 41i as described above as long as adhesive layers 40 are intermittently provided in each of a plurality of linear adhesive rows that extend in parallel from peeling start end 19a toward peeling finish end 19b when the region of upper base material 10 that forms
25 delivery slip 11 is peeled off from lower base material 20, and adhesive layer 40 is not present in at least one adhesive row on any line perpendicular to

the adhesive rows.

[0059]

For example, as shown in Figure 7a, elliptical adhesive layers 40 may be provided in each of adhesive rows 41a to 41i. In this case, adhesive
5 layers 40 are provided so that a short axis of an ellipse is perpendicular to adhesive rows 41a to 41i. This reduces the area that attaches upper base material 10 to lower base material 20 in peeled region 3 where the region of upper base material 10 that forms delivery slip 11 is to be peeled off from lower base material 20, and thus can reduce the adhesive force in peeled
10 region 3, and can reduce stress applied to peeled region 3 at one time when the region of upper base material 10 that forms delivery slip 11 is peeled off from lower base material 20.

[0060]

Also, as shown in Figure 7b, triangular adhesive layers 40 may be
15 provided in each of adhesive rows 41a to 41i. In this case, the triangle has a vertex on the side of peeling start end 19a, and has an area expanding toward peeling finish end 19b. Thus, the adhesive force that attaches upper base material 10 to lower base material 20 gradually increased from peeling start end 19a toward peeling finish end 19b. This allows the region of upper
20 base material 10 that forms delivery slip 11 to be easily peeled off from lower base material 20 in addition to the operation described above.

[0061]

Also, as shown in Figure 7c, triangular adhesive layers 40 may be provided in each of adhesive rows 41a to 41i in a direction opposite to that in
25 Figure 7b. In this case, the triangle has an area that decreases from peeling start end 19a toward peeling finish end 19b. Thus, the adhesive force that

attaches upper base material 10 to lower base material 20 gradually decreases from peeling start end 19a toward peeling finish end 19b, thereby further preventing formation of a curl on the side of peeling finish end 19b when delivery slip 11 is peeled off from lower base material 20.

5 [0062]

The shapes of adhesive layers 40, 140 for peelably attaching upper base materials 10, 110 to lower base material 20, 120 in the regions that form delivery slips 11, 111 are not limited to the above described shapes.

However, a length of the adhesive layer from peeling start ends 19a, 119a
10 toward peeling finish ends 19b, 119b is preferably 1.5 times or more than the length in a direction perpendicular thereto.

Claims

1. A label in which an upper base material and a lower base material are laminated and peelably attached, and a release mount is peelably attached by a tacky layer laminated on a surface of the lower base material opposite to a surface joining the upper base material, wherein:

the upper base material and the lower base material are peelably attached by a plurality of pseudo adhesive structures provided like islands between the upper base material and the lower base material,

the plurality of pseudo adhesive structures are provided so that, for a line group passing through at least one of the plurality of pseudo adhesive structures among lines that extend from a peeling start end of the upper base material, from the lower base material toward a peeling finish end opposite to the peeling start end, at least one but not all the pseudo adhesive structures are present on any line perpendicular to the aforementioned line group.

2. The label according to claim 1, wherein said like island is formed in a rectangular shape with a long side in the direction extending in parallel from peeling start end toward peeling finish end.