

METHOD OF PACKAGING AND PACKAGE FOR A BUNDLE OF CIGARETTES

FIELD OF THE INVENTION

This invention relates to a cigarette packaging system which enhances
5 cigarette freshness during storage and use and as well has the facility to
indicate to the user package freshness upon initial opening.

BACKGROUND OF THE INVENTION

It has been understood for some time that compartmentalization of
small multiples of cigarettes extends the freshness of the package of cigarettes
10 not only during storage but as well during use. It has been demonstrated that
with the standard package of 20 cigarettes, when the package is open, the
moisture loss is significant resulting in stale tasting cigarettes in less than 24
hours from initial package opening. Compartmentalization of small multiples
of cigarettes reduces the number of cigarettes exposed over time hence,
15 providing a cigarette packaging which keeps the cigarettes fresher during the
smoking of the entire pack. Moore, U.S. Patent 2,185,604 describes a
container in which small multiples of cigarettes are packaged. Individual tear
strips are provided to expose a small multiple of cigarettes where only those
cigarettes commence losing moisture over time. The package is provided
20 with a lid that further resists moisture loss of the exposed cigarettes. In
addition, the tear away tab may be laid back down over the open
compartment of cigarettes to reduce to some extent further moisture loss.

Gatto, U.S. Patent 3,148,768 describes compartmentalization of small
multiples of cigarettes in an overall package of 20 or more cigarettes. The
25 small portion packages include the necessary wrapping to maintain freshness
of those cigarettes until the package is open. The package may be partially
resealed by folding the upper flaps back upon one another. However, gaps
remain so that the individual cigarettes in that portion pack lose moisture.

This is not a significant problem because the cigarettes in that package would be smoked before they become too stale. Geldmacher U.S. Patent 3,732,663 describes a method of packaging a small multiple of cigarettes in webs of foil and/or plastic sheet. Such packaging ensures cigarette freshness until
5 opening. The package may include a flip top which may be hinged to a closed position when the cigarettes are being temporarily stored. However, the hinged lid does not provide a reseal of the cigarette package. The package system may also be designed to provide for individual packaging of the cigarettes where the presentation may be an assembly of multiple
10 individual packages or roll shaped packages. The cigarettes are extracted from the individual cells of the cigarette package. Wolfe, U.S. Patent 5,333,729 describes a resealable closure for a film sealed soft sided package of cigarettes. The closure may either be provided on the sealed package or later applied by the smoker. The closure includes a flap with pressure
15 sensitive adhesive for resealing the film on the soft sided package.

Langley et al., U.S. Patent 4,807,745 describes a packaging composite for barrier sealed cigarettes. Films of moisture barrier, vapour barrier and the like are laminated to provide a wrapping for the package of cigarettes which prevents moisture loss during storage. The advantages of the freshness
20 barrier are lost when the package is opened because the cigarettes are now exposed in the normal manner to atmosphere during which there is rapid moisture loss from all of the cigarettes in the exposed package. An alternative barrier sealed hinged lid cigarette package is described in published Rothmans International Services Limited PCT application WO
25 97/42098, which package may be opened by shearing the barrier.

In accordance with an aspect of this invention, a package is provided which retains freshness of the cigarettes not only during storage but as well after the package has been opened where optionally an indication of cigarette freshness can be provided when the package is first opened.

5 **SUMMARY OF THE INVENTION**

In accordance with an aspect of the invention, a flow seal type of cigarette package is provided in which multiples of cigarettes are packaged. The flow seal packaging technology facilitates rapid packaging of cigarettes where the material used in the package have excellent vapour, moisture and
10 gas barrier properties. The package may be provided near its upper end with a resealable cigarette access means which is opened to permit extraction of a single cigarette and is immediately resealable either manually or automatically upon closure of the cigarette package. Optionally, at the time of packaging the cigarettes, the package may be sealed under a vacuum to provide a rush
15 of air when the package is first opened to indicate to the consumer cigarette freshness. Many advantages and features flow from this cigarette packaging system which are described in conjunction with the detailed discussion of the preferred embodiments.

According to an aspect of the invention, a method for packaging a
20 bundle of cigarettes, the method comprises folding a laminate barrier about the bundle and flow sealing the folded barrier along a direction of the bundle and end flow sealing the folded barrier at each extremity of the bundle direction.

According to another aspect of the invention, a barrier packaging for a
25 bundle of cigarettes, the barrier having a flow seal seam across the bundle traversing cigarette length and a flow seal seam along each side of the bundle, means for opening the barrier to provide a cigarette access opening.



BRIEF DESCRIPTION OF THE DRAWINGS

Preferred embodiments of the invention are described with respect to the drawings wherein:

Figure 1 is a perspective view of the standard shell and slide package
5 in accordance with one embodiment of the invention;

Figure 2 is a perspective view of the package of Figure 1 in the open position;

Figure 3 is a perspective view of the package of Figure 2 with the resealable access opened;

10 Figure 4 is a perspective view of an alternative embodiment for the resealable access opening as used on a soft sided cigarette package;

Figure 5 is a cross-sectional side view of the package of Figure 4 with access closed;

Figure 6 is a cross-sectional side view which shows the access opened;

15 Figure 7 is a cross-sectional side view of an alternative for the access opening of the soft pack of Figure 4;

Figure 8 is a side elevation of the shell and slide package of Figure 1 showing an alternative embodiment for opening the access;

20 Figure 9 is a side elevation of the package of Figure 8 in the open position;

Figure 10 is a top view of the foil used in the flow seal package;

Figure 11 is a bundle of cigarettes grouped to be placed in a tray;

Figure 12 shows the bundle of cigarettes of Figure 11 in a tray;

25 Figure 13 is a perspective view of the tray being advanced within the foil for purposes of forming a flow seal package;

Figure 14 shows the steps in forming the transverse flow seal to enclose the bundles of cigarettes;

Figure 15 is a schematic showing the steps of cutting the flow seal package of cigarettes and folding the sides to form a finished package;

Figure 16 shows an alternative shape for the bundle of cigarettes in a corresponding tray;

5 Figure 17 is a perspective view of the flow seal package for the bundle of Figure 16;

Figure 18 is a side section through an alternative embodiment for automatically opening the access; and

10 Figure 19 is a side section of Figure 18 showing the access in open position.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The freshness packaging system of this invention overcomes a number of problems with existing systems. Not only does the packaging retain the desired moisture content in the cigarettes during storage but as well prevents
15 more humid environments from causing spottings on the cigarette during storage. The packaging is gas tight, hence, gas flushing may be used in packaging the cigarettes, for example, a gas flush may be employed to resist the potential of mould growth on cigarette tobacco. The packaging is particle
20 tight so that loose tobacco does not fall out of the package and into someone's pocket or purse. The sealing system for the package may be made vacuum tight so that a very slight vacuum may be drawn on the package. When the user opens the package a slight rush of air indicates the freshness of the product. The cigarettes can either be packaged under a partial vacuum or could be packaged in a slightly warm condition so that as they cool down, a
25 slight vacuum develops within the package. The vacuum packaging of the product can add to the overall strength of the package particularly if a cardboard tray is used for supporting the cigarettes in the desired package shape. Such an arrangement would eliminate the need for an outer package.

All advertising material and the like could be presented on the face of the packaging sheet. Depending upon the type of graphics desired, various foil constituents may be used including multiple layers which can project holographic images. The gas tightness of the package also lends itself to the application of menthol on the cigarettes and maintaining the fresh menthol flavour in the package. Menthol crystals may be included in the package to provide a menthol flavour even after the package is initially opened because of the resealable feature of the package access.

With reference to Figures 1 and 2, an exemplary shell and slide package 10 has the standard outer card portion 12 displaying the usual advertising information. The outer card package 12 has the usual flip top lid 14 which presents the usual individual packages 16 and 18 containing the usual number of cigarettes to make up a total package of 25 cigarettes. To open the package, the bottom 15 of the slide 17 is pushed up within the shell 12. Each package 16 or 18 as shown in Figure 5, houses therewithin bundles in the form of two rows of cigarettes 20 and 22 in the usual manner. The package is however quite different. Each package 16 and 18 comprises a sheet of material 24 which preferably provides a moisture barrier, a vapour barrier and a structural barrier. The barrier material is preferably a laminate of several layers where each layer may have a particular function. The barrier layers will at least provide moisture and gas barriers and preferably additional layers would provide flavour barrier (i.e., menthol), structure and the like. The barrier may also include layers which provide for heat sealing or adhesive sealing of the barrier.

The sheet material 24 is folded and sealed in accordance with standard practice using well known flow seal type machines. U.S. Patent 4,420,080 discloses, for example, various types of resealable dispenser containers where the resealable pouch is made using the standard flow seal technology. The

resealable access to the package comprises a tab having pressure sensitive reuseable adhesive which when lifted from the package in the first instance pulls the perforated package wall from the package to reveal an opening. When the individual product is removed from the package the tab may be laid

5 back down onto the package and using pressure, resealed. The resealable adhesive has sufficient pressure sensitivity to form a seal which prevents moisture from escaping or entering the package. In accordance with the embodiment of Figure 3, the resealable access 26 in the form of a tab 27 in accordance with this embodiment, is lifted upwardly in direction of arrow 23

10 to expose an opening 29 whereby one or more cigarettes may be removed from the individual package 16 or 18. After the desired cigarette is removed the resealable access tab 26 may be brought down over the face 28 of the package for resealing and thereby retain the freshness of the packaged cigarettes. The underside 25 of the tab 26 has a suitable pressure sensitive

15 adhesive which forms a moisture tight seal to prevent loss or gain of moisture. The resealing of the package functions independently of the lid 14 of the card package 12, although it may function in conjunction with opening and closing of the lid in a manner to be discussed with respect to Figures 8 and 9.

20 The flow seal technology may also be applied to a soft sided package such as package 31 of Figure 4. The package has the outer walls 33 which are folded at 35 to provide a neat appearance. The top portion 37 of the soft pack has an access 39 of this invention which is provided by a tab 41 which may be peeled back from the face 43. The tab 41 has on its underside 45 a

25 pressure sensitive adhesive. When the tab 41 is peeled back the pressure sensitive adhesive carries with it the die cut wall portion in the form of a cut out 47 which pulls away from the balance of the wall 33 to provide an opening 49 for access to the cigarettes. After the cigarette is withdrawn, the

tab is resealed by applying pressure to the adhesive in region 45 to seal the opening 49 along the face 43 of the package.

As shown in Figures 5 and 6, cigarettes in columns 20 and 22 may be contained in a cardboard shell or tray 30 which is wrapped in outer sheet material 24. The resealable access 26 comprises the actual wrapper material which is a cut out 32 and the outer sealing membrane in the form of tab 34. The package may be opened by pulling upwardly on the sealing membrane end 36 of the tab to tear or peel it away from the face 38 of the package which at the same time tears away the membrane cut out 32 to expose a cigarette 22. After the cigarette is removed with the access tab 34 in the fully open position, the resealable membrane 34 may be lowered back on to the face 38 of the package to reseal the package until subsequent re-use.

An alternative embodiment for the resealable access 26 is shown in Figure 7 where the resealable membrane 40 is secured to the face 38 of the package. The resealable end 42 of the access 26 may be pulled up from the top 44 of the package to reveal a cigarette 20 for removal from the package. By pulling the resealable access off the package, the die cut portion of the membrane 46 is removed. To reseal the package, the access tab 26 is pushed up over the package face and back onto the top 51 and resealed about the opening to preserve freshness of the cigarettes during use of the package.

With reference to Figures 8 and 9, a mechanical system for opening and closing the resealable access on the cigarette package 53 is shown. The package 53 in accordance with this embodiment has a shell 55 with a slide 57. The slide 57 may be pushed upwardly of the shell 55 to expose the inner package 59 of cigarettes. The inner package 59 has a foil wrapper 61 which is die cut at 63 to form an opening in the face 65 and the top 67 of the package. The slide 57 has the usual top flap 69 which is hinged about

juncture 71. The flap 69 is adhered by the tear tab 73 by the adhesive strip 75.

As shown in Figure 9, when the flap 69 is pulled away from the face 65 of the package foil the perforation 63 allows the foil portion 77 to be pulled away in unison with flap 69 and thereby provide an opening 79 to allow extraction of a cigarette 22 in the direction of arrow 81. After the cigarette is removed, the package is resealed by simply pulling the flap 69 down over the face 65 of the individual packs of cigarettes. The inner face of the tab 73 has the pressure sensitive adhesive which adheres to the face 65 of the package to reseal the opening 79. The pressure sensitive adhesive may be such that by simply contacting the inner face 73 with the face 65, a seal is formed to prevent moisture loss until the next cigarette is removed from the package.

Figure 10 shows the sheet material in the form of a laminate barrier for use in packaging the cigarettes. The sheet material 24 preferably has a plurality of score lines 48 which permit folding of the package sheet about the cigarettes in forming the relatively rectangular final package 16 or 18 of Figure 1. If the sheet does not have score lines, the lines indicate for sake of discussion generally where the film is folded about the bundle of cigarettes. The sheet may include advertising material or other artistic work in region 50. The sheet 24 may be a laminate whereby a variety of decorative features may be included in the sheet. The region 50 more or less defines the front portion of the package. A die cut opening in the shape of cut out 52, as shown in outline, is cut either partially or all the way through the sheet material 24. The die cut procedure and the attachment of the outer sealing membrane 34 to the cut out 52 ensures that upon pulling on the tab end 36, which is releasably adhered to the face 50 of the package, cut out 52 is pulled away to provide the access opening. This technique is demonstrated in the

aforementioned U.S. Patent 4,420,080 and as now adapted to cigarette packages provides for ease in withdrawal of one or more cigarettes from the package and maintains cigarette freshness. In the situation where it is desired to vacuum pack the bundle of cigarettes, it is understood that the die cut
5 procedure and set up is provided in a manner which ensures that vacuum is maintained in the package until first opened. This may be achieved for example in only partially die cutting through the sheet 24 to maintain thereby the desired vacuum.

The sheet material 24 of Figure 10 is folded and is wrapped around a
10 bundle of cigarettes 54 of Figure 11. The bundle is assembled in the usual set of 12 or 13 cigarettes. The bundle may be contained within a tray 56. The tray is preferably used to stabilize the bundle while the bundle is being packaged in a flow seal system. The use of a tray 56 provides a unique arrangement of cigarettes in advance of packaging. The first step in sealing
15 the bundle of cigarettes is the overlapping and sealing of the ends 58 and 60. These regions are overlapped to form a seal 62 between counter-rotating sealing rollers 83 and 85. The seal 62 extends transversely of the bundle 54 of cigarettes, in the direction of arrow 64. Preferably the sheet 24 is continuous as shown in Figures 13 and 14 and by way of registering the tray
20 of cigarettes with the score lines 48 in the sheet as shown in Figure 10, the sheet is folded up and over the bundle 54. The tray may function to keep the cigarette bundle from falling apart during this and subsequent steps. The flow seal 62 is laid over on itself by roller 87 to form a flow seal fold 89. The end flow seals 66 are made in the sealed sheet by counter-rotating
25 rollers. The apparatus for making the transverse and end flow seals of Figures 13, 14 and 15 may be of the type described in U.S. Patent 4,420,080, although it is appreciated that many other machines accomplishing a similar flow seal may be used. It is also understood that the flow seal may be of the

heat seal type, adhesive seal type or any other type of gas and moisture proof form of seal. The exemplary devices for making the end seals are shown in Figure 15. The end flow seal with cut-off is achieved by opposing revolving quadrants 78 and 80 which have opposing lateral extending mesh faces 82
5 which form the crimped end seal 66 and at the same time have knives 84 for cutting the sealed ends to form a discreet sealed package 91. The cigarettes are now protected from moisture gain and/or moisture loss until the lift up tab is pulled up to expose cigarettes in accordance with the procedures discussed with respect to Figures 1 to 9.

10 The end flow seals 66 of package 93 are tucked into triangular shaped portions 86. The tray 56 has a face portion 88 with depending sides 90. In this particular embodiment the sides 90 extend essentially at right angles to the face portion 88. The face portion of the tray 56 has a U-shaped cutout 92 which will allow access to the cigarettes when the resealable end 36 is pulled
15 upwardly.

With conventional foil packaging for a multiplicity of cigarettes, the standard metal foil wrap has a tucked in base with overlapping sides. The foil is folded upon itself without any adhesive or the like. When it is desired to open the individual foil package the loosely held foil front is pulled away
20 from the base wrapper to reveal and provide access to the cigarettes therein. The loose leaf foil cannot be placed over the cigarettes to form any form of moisture barrier to prevent loss of or gain of moisture from or in the cigarettes during the smoking of the package of the cigarettes.

With the system of this invention, as shown in Figure 15, the
25 transverse seal 62 is folded upon itself at 89 so that the package assumes a square shape. The ends 66 of the package are folded upon themselves and pleated to form a square end having overlapped portions with pleated and squared bottom 104 and top 106. This provides a very attractive completed

package for the multiple of cigarettes where the package can either be used on its own or provided within an outer cardboard pop top package or shell, slide and tube package. The finished package 93 has the sheet material neatly folded to form what is commonly referred to as a soft-sided package.

5 Figures 16 and 17 demonstrate the significant advantages of this packaging system for cigarettes. It is understood that the multiple of cigarettes may be configured in any desired arrangement, for example, as described in applicant's Canadian Patent 2,085,777. A variety of bundle shapes for a multiple of cigarettes may be presented where the packaging system, in accordance with this invention, readily accommodates these
10 various shapes because of the ability to readily tuck the flow seal sheet. In this respect it is understood that the direction of the flow seal may in addition to extending transversely of the package, may also extend along the length of the package or diagonally of the package to accommodate novel package
15 shapes and also provide novel shapes for the access opening.

 The bundle 54 may have, for example, the individual cigarettes 112 formed therein to define a package having a tapered front. The tray 56 has the planar face 88 yet the sides 114 extend outwardly at an angle from the face 88 to accommodate the sloping fronts of the bundled shape for the
20 cigarette multiple 54. This bundle of cigarettes, as held by the tray 56, is then packaged with the flow seal sheet material to form a completed package 116. As shown in Figure 17, the package 116 has a front 118 and a tapered edge 120 which meets the side 122. The package includes the tab 110 which may be pulled back to expose the cigarettes and then may be resealed after a
25 cigarette is extracted from the package.

The packaging design of this invention accommodates many different package shapes and designs for opening and closing access to the cigarette package. A newly configured machine is not required each time there is a package redesign. Instead, one only need provide a different inner tray for the flow seal type of packaging. If a vacuum is developed within the package the sheet material can readily conform to any predetermined shape and thereby provide a neater looking finished package.

A system for automatically opening tab sealing the access opening is described with respect to Figures 18 and 19. A standard slide and shell cigarette package is shown. The shell 130 encloses the slide 132 which in turn houses the bundle of cigarettes 134. The flow sealed bundle of cigarettes has an access opening at 136 which is sealed closed by a tab 138 adhered to the barrier material 140 at the lower end 142 of the barrier material and also at the upper portion of the barrier material at 144. A suitable link device 146 which may be a flexible filament is attached to the inside 148 of the shell 130 and is attached at the top 150 of the pull tab 138. The barrier is die cut at 152 and 154 to form the cut-out for the access opening 136. As shown in Figure 19, as the slide 132 is advanced upwardly in the direction of arrow 156 within the shell 130 the link 146 pulls the tab 138 off the top 144 to expose the access 136 and thereby permit withdrawal of a cigarette 158 from the bundle 134. Reclosing of the package causes the tab 138 to resume its position as shown in Figure 18 where the tab 138 reseals the access opening 136. The upper flap 160 is then closed and the inner lip 162 tucked within the shell 130 to complete reclosure of the package. Such automatic opening and closing of the sealing device ensures that the cigarettes within the bundle are maintained fresh and avoids loss of freshness due to the smoker forgetting to re-apply the tab seal for the access opening.

The application of flow seal technology to the packaging of bundles of cigarettes provides many unexpected advantages and features. The flow seal package may form the exterior of the soft sided package. Advertising material may be incorporated in the laminate of the sheet or barrier material which goes into the flow seal package. The package ends and transverse flow seal may be neatly folded to form an attractive end product. Access to the cigarettes may be achieved by tearing open the flow seal package or by opening the optional resealable feature. The flow seal package provides for a vacuum packed style of cigarettes. This is beneficial because on the initial opening of the cigarette package, a whoosh of air indicates to the user product freshness. The flow seal package readily accommodates varying shapes in the cigarette bundle so that greater flexibility is provided in marketing of the product. The flow seal packaging works particularly well in packaging various bundle shapes by virtue of the use of a tray which retains the bundle shape during the flow seal packaging procedure. The flow seal technology may be used to accommodate shell and slide packages of the type shown in Figure 2 where the slide opens through the top of the shell or alternatively where the slide opens through the side of the shell. The flow seal technology may also be used on trays of cigarette bundles where the cigarettes are placed in individual cavities formed in the tray such as described in the aforementioned U.S. Patents 3,148,768. Individual tab seals may be provided for respective tray cavities. The flow seal technology may also be used to package a multiple of packages of or bundles of cigarettes and may be a soft sided flow sealed package.

As is appreciated, moisture loss during the period that a package of cigarettes is smoked can greatly affect the taste of the cigarettes smoked during that period. Alternatively, in more humid climates moisture gain in the cigarettes can also affect flavour and appearance. The flow seal

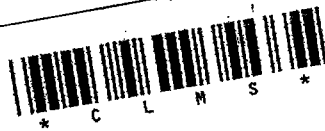
packaging provides a significant benefit in a resealable access opening. The flow seal technology can provide such an opening in an attractive package. The opening may be opened and closed several times while still maintaining a seal closure of the opening. The tab closure for the opening has efficient
5 strength to permit a vacuum seal. This provides reassurance of product freshness as the tab is pulled back and a rush of air signals product freshness. The use of vacuum packaging can also improve the stiffness of the cigarette package for shipment purposes whereas such features are readily provide by the flow seal technology.

10 Although preferred embodiments of the invention have been described herein in detail, it will be understood by those skilled in the art that variations may be made thereto without departing from the spirit of the invention or the scope of the appended claims.

**CLAIMS:**

1. A method for packaging a bundle of cigarettes, said method comprising folding a laminate barrier about said bundle and flow sealing said
5 folded barrier along a direction of said bundle and end flow sealing said folded barrier at each extremity of said bundle direction.
2. A method of claim 1, wherein said barrier has a sealed access opening positioned during said folding at top end of said bundle.
- 10 3. A method of claim 2, wherein said access opening is die cut in said barrier, said opening is sealed with a tab adhered over said opening by pressure sensitive adhesive.
- 15 4. A method of claim 3, wherein said tab is adhered to die cut barrier material which defines said access opening.
5. A method of claim 4, wherein said access opening and adhered tab are preformed in said barrier prior to said step of folding said barrier about said
20 bundle.
6. A method of claim 1, wherein said barrier is folded about said bundle to extend said flow seal along a width direction of said bundle to traverse cigarette length direction in said bundle, said flow seal being positioned
25 intermediate bundle top and bottom ends and said end flow seal being along each side of said bundle.





7. A method of claim 5, wherein said barrier is continuous, said bundle of cigarettes being bundled in a preformed tray to define a desired bundle shape, each bundle being positioned over a respective preformed access opening in said continuous barrier.

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8. A method of claim 7, wherein said barrier includes an outer layer of heat sealable material, said barrier being heat sealed along said flow seals.

9. A method of claim 3, wherein said opening is partially die cut in said
10 barrier to provide an outline for an opening cut-out, adhesively attaching said tab over said opening cut-out and to said barrier surrounding said cut-out, said adhesive having sufficient strength to pull said cut-out away from said barrier when said tab is pulled open for first time.

15 10. A method of claim 1 wherein said cigarettes are packaged warm.

11. A method of claim 1 wherein said cigarettes are packaged in a vacuum.

20 12. A method of claim 1 wherein a flavourant is added to said folded barrier before said barrier is flow sealed.

13. A method of claim 3 wherein said pressure sensitive adhesive is resealable.



14. A barrier packaging for a bundle of cigarettes, said barrier having a flow seal seam across said bundle traversing cigarette length and a flow seal seam along each side of said bundle, means for opening said barrier to provide a cigarette access opening.

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15. A barrier packaging of claim 14 wherein said means for opening said barrier comprises a tab adhesively secured to an opening cut-out in said barrier, said tab pulling said cut-out away from said opening as said tab is peeled from said barrier.

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16. A barrier packaging of claim 15 wherein said opening is cut-out of said barrier at a top portion of said bundle.

17. A barrier packaging of claim 16 housed in an outer cigarette package,
15 said outer cigarette package have means for automatically pulling said tab open and closing said tab when said cigarette package is opened and closed respectively.

18. A barrier packaging of claim 17 wherein said adhesive is a re-sealable
20 pressure sensitive adhesive.

19. A barrier packaging of claim 14 wherein said barrier is a multi-laminate material comprising at least a moisture barrier layer and a flavourant barrier layer.

25

20. A barrier packaging of claim 14 wherein said bundle of cigarettes is irregular shape in cross section and said flow seal barrier conforms to said irregular shape.

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21. A barrier packaging of claim 19 wherein said barrier includes a gas barrier layer, said barrier being sealed under vacuum.
22. A barrier packaging of claim 16 wherein said opening is partially die cut, said tab being secured to said partially die cut barrier and being sufficiently adhered to tear out said die cut portion upon first opening of said package.