In combination, a quantity of shredded cheese and a generally rectangular pouch for containing said shredded cheese comprising: a pair of generally rectangular walls, each wall having a top edge, a bottom edge, and a pair of side edges; said walls being joined by heat seals along their bottom and side edges; said pouch having a fastener comprising a pair of fastener strips attached to opposite inner surfaces of upper portions of said walls and extending a width of the pouch between the side edges of said generally rectangular walls; said fastener strips having complementary mechanically interengageable fastener members thereon; said fastener further having a peelable seal between the two fastener strips extending the length of said fastener strips beneath said fastener members, said fastener strips being bonded to the walls at the location of the peelable seal; said pouch further comprising means defining a hole through said pouch above said fastener members, and means defining a line of weakness above said hole to facilitate opening of the pouch by tearing away an upper portion thereof.
ABSTRACT OF THE DISCLOSURE

In combination, a quantity of shredded cheese and a generally rectangular pouch for containing said shredded cheese comprising: a pair of generally rectangular walls, each wall having a top edge, a bottom edge, and a pair of side edges; said walls being joined by heat seals along their bottom and side edges; said pouch having a fastener comprising a pair of fastener strips attached to opposite inner surfaces of upper portions of said walls and extending a width of the pouch between the side edges of said generally rectangular walls; said fastener strips having complementary mechanically interengageable fastener members thereon; said fastener further having a peelable seal between the two fastener strips extending the length of said fastener strips beneath said fastener members, said fastener strips being bonded to the walls at the location of the peelable seal; said pouch further comprising means defining a hole through said pouch above said fastener members, and means defining a line of weakness above said hole to facilitate opening of the pouch by tearing away an upper portion thereof.
RECLOSEABLE POUCH AND METHOD AND APPARATUS FOR
FORMING, FILLING AND SEALING

Background of the Invention

This application is a division of copending Canadian Application Serial No. 2,069,030, filed May 20, 1992.

Technical Field

The invention relates generally to packaging for food products, and more particularly to reclosable pouches and methods and apparatus for forming, filling and sealing such pouches.

Background Information

It is well known in the art that, for certain food products, efficiency in packaging and acceptable shelf life can be obtained by hermetically sealing the product in a package in a form/fill/seal (FFS) operation.

In providing a commercially viable package through FFS operations, several considerations must be addressed. One consideration is that the package must be capable of being opened by the consumer without undue difficulty. Another consideration is that the package must be economical to produce, and should be capable of being formed, filled and sealed at relatively high rates. It is also desirable that the package be durable so as to withstand the stresses of the FFS operation and subsequent shipping and handling without damage and without deterioration of appearance.

In recent years, there has been increased demand for zippers or other means to provide reclosability. One particular package configuration that has been used commercially in recent years has a generally rectangular configuration with a reclosable zipper extending within a fold along one edge, as illustrated in, e.g., U.S. Patent No. 4,589,145. To open the package, the package material
- 1a -

may be slit along the folded edge to gain access to the zipper, and the zipper is then opened to provide access to the product. The disposition of the zipper along a long edge of the package improves access to the package interior as compared with disposition of the zipper along one of the
short edges. Where each package is to contain a stack of sliced product or a relatively large item such as a block of cheese, the stack or block may be placed on a horizontally-oriented web and the web can be wrapped around the item to form the package as described in the above-referenced Patent No. 4,589,145.

When handling products comprised of numerous small pieces such as shredded cheese, cereal, etc., it is generally desirable to have the package partly formed into a pouch which is open at one end, or along one side, with the pouch oriented so that the open end or side is at the top of the partially-formed pouch, and to dispense product into the partially-formed pouch through the open top or side.

Vertical FFS operations such as that described in U.S. Patent No. 4,874,257 represent one approach to addressing the aforementioned considerations in packaging food products comprised of numerous small pieces. In the method of Patent No. 4,874,257, the zipper is disposed vertically along one side of the package being formed, and the pouch is filled by gravity-induced flow of product downward from a filling spout.

Another approach is illustrated by U.S. Patent No. 4,945,714, in which the pouches travel horizontally as they are formed, filled and sealed. In Patent No. 4,945,714, the pouch is formed in an inverted orientation from a single web which has a fold at its lower end and a zipper within the fold. Two potential problems with this approach are that penetration of product into the zipper may occur, and that if the upper end of the pouch is perforated to facilitate opening, or punched to receive a display hanger, loss of hermeticity would result.

One problem that must be addressed in any zipper-equipped package such as those mentioned above is that, where the ends of the zippers extend into seal areas, difficulty may be encountered in providing hermeticity at
high throughput rates, due to the increased thickness of the seal area at the ends of the zipper.

There is a continuing need for improved packages of the type described above, and for improved FFS operations for such packages which address the aforementioned considerations while avoiding the disadvantages of the prior art discussed above.

**Summary of the Invention**

In accordance with an embodiment of the present invention there is provided in combination, a quantity of shredded cheese and a generally rectangular pouch for containing the shredded cheese comprising: a pair of generally rectangular walls, each wall having a top edge, a bottom edge, and a pair of side edges; the walls being joined by heat seals along their bottom and side edges; the pouch having a fastener comprising a pair of fastener strips attached to opposite inner surfaces of upper portions of the walls and extending a width of the pouch between the side edges of the generally rectangular walls; the fastener strips having complementary mechanically interengageable fastener members thereon; the fastener further having a peelable seal between the two fastener strips extending the length of the fastener strips beneath said fastener members, the fastener strips being bonded to the walls at the location of the peelable seal; the pouch further comprising means defining a hole through the pouch above the fastener members, and means defining a line of weakness above the hole to facilitate opening of the pouch by tearing away an upper portion thereof.

In accordance with another embodiment of the present invention there is provided in combination, a quantity of shredded cheese and a generally rectangular pouch for containing said shredded cheese comprising: a pair of generally rectangular sidewalls, each sidewall having an upper
end, a pair of side edges and a lower end; the sidewalls being integrally joined along a fold at their upper ends and joined by heat seals along their side edges and lower ends; the pouch having a pair of closure strips attached to opposite inner surfaces of upper portions of the sidewalls and extending a width of the pouch between the side edges of the generally rectangular sidewalls; the closure strips having complementary mechanically interengageable closure components thereon; the closure strips further having a peelable seal between the two closure strips extending the length of the closure strips beneath the complementary mechanically interengageable closure components, the closure strips being bonded to the walls at the location of the integral peelable seal strips; the pouch further comprising means defining a hole through said pouch above the closure strips, and means defining a line of weakness above the hole to facilitate opening of the pouch by tearing away an upper portion thereof.

In accordance with a further embodiment of the present invention there is provided a generally rectangular pouch for containing shredded cheese, comprising: a pair of generally rectangular sidewalls, each sidewall having an upper end, a pair of side edges and a lower end; the sidewalls being integrally joined along a fold at their upper ends and joined by heat seals along their side edges and lower ends; the pouch having a pair of closure strips attached to opposite inner surfaces of upper portions of said sidewalls and extending a width of the pouch between the side edges of the generally rectangular sidewalls; the closure strips having complementary mechanically interengageable closure components thereon; the closure strips further having a peelable seal extending the length of the closure strips beneath the complementary mechanically interengageable closure components; the pouch further comprising means defining a hole through the pouch
above the closure strips, and means defining a line of weakness above the hole to facilitate opening of the pouch by tearing away an upper portion thereof; wherein the closure strips have a lower flange layer and peelable seal layer in the region below the closure components, with the thickness of the portion below the closure strips being less than 0.006 inch to provide good heat conduction through the base layer to the peelable seal layer.

In accordance with a still further embodiment of the present invention there is provided in combination, a quantity of shredded cheese and a generally rectangular pouch for containing the shredded cheese comprising: a pair of generally rectangular walls, each wall having a top edge, a bottom edge, and a pair of side edges; the walls being joined by heat seals along their bottom and side edges; the pouch having a pair of fastener strips attached over at least a portion thereof to opposite inner surfaces of upper portions of the walls and extending a width of the pouch between the side edges of the generally rectangular walls; the fastener strips having complementary mechanically interengageable fastener members thereon; the fastener strips further having peelable seal strips at a predetermined location thereon which seal the fastener strips to each other between the complementary mechanically interengageable fastener members and the shredded cheese to define a hermetic seal area containing the shredded cheese and preventing any contents of the pouch from leaking into the complementary mechanically interengageable fastener members, the fastener strips being bonded to the walls at the location of the peelable seal strips.

In accordance with another embodiment of the present invention there is provided a generally rectangular pouch for containing shredded cheese comprising: a pair of generally
rectangular walls, each wall having a top edge, a bottom edge, and a pair of side edges; the walls being joined by heat seals along their bottom and side edges; the pouch having a pair of fastener strips attached over at least a portion thereof to opposite inner surfaces of upper portions of the walls and extending a width of the pouch between the side edges of the generally rectangular walls; the fastener strips further having peelable seal strips integral with the fastener strips, with the strips peelably sealed to one another and extending the length of the fastener strips, and the fastener strips bonded to the walls at the location of the integral peelable seal strips; the pouch further comprising means defining a hole through the pouch above the fastener members, and means defining a line of weakness above the hole to facilitate opening of the pouch by tearing away an upper portion thereof; wherein the fastener strips further include integral ribs opposite the integral peelable seal strips.

In accordance with yet another embodiment of the present invention there is provided a generally rectangular pouch for containing shredded cheese, comprising: a pair of generally rectangular sidewalls, each sidewall having a top edge, a pair of side edges and a lower end; the sidewalls being joined along their lower ends and along their side edges; the pouch having a pair of closure strips attached to opposite inner surfaces of upper portions of the sidewalls and extending a width of the pouch between the side edges of the generally rectangular sidewalls; and the closure strips having respective flanges which are bonded over a substantial portion thereof to respective sidewalls, with the flanges having integral complementary mechanically interengageable closure components and integral peelable seal strips extending the length of the fastener strips; the flanges further
including integral ribs opposite the integral peelable seal strips.

Further aspects of the invention are disclosed below and in the accompanying drawings.

**Brief Description of the Drawings**

FIG. 1 is an elevational view of a pouch in accordance with a first embodiment of the invention.

FIG. 2 is a perspective view of the pouch of FIG. 1, showing a removable portion of the pouch being torn away to permit access to the interior thereof.

FIG. 3 is a sectional view taken substantially along line 3-3 in FIG. 1.

FIG. 4 is a sectional view similar to that of FIG. 3, showing the pouch in an opened configuration.

FIG. 5 is a sectional view similar to that of FIG. 3, illustrating a pouch in accordance with a second embodiment of the invention.

FIG. 6 is a diagrammatical plan view of an apparatus for forming, filling and sealing pouches.

FIG. 7 is an elevational view of the apparatus of FIG. 6.

FIG. 8 is a fragmentary diagrammatical plan view of an alternate apparatus.

**Detailed Description of Preferred Embodiments**

The invention is generally embodied in a reclosable pouch. Also disclosed is a method and apparatus for forming, filling, and sealing the pouch.

FIGS. 1-4 illustrate a first embodiment of the invention, comprising a pouch 10 which has first and second generally rectangular walls 12, 14 sealed to one another along their bottom edges 16, 18 and side edges 20, 22. Extending across upper portions of the respective walls are closure members 24, 26.
Each closure member 24, 26 has a substantially planar outer surface 28, 30 which is sealed to its respective associated wall. On their inner surfaces the closure members have complementary interlocking zipper profiles 32, 34 extending horizontally along their entire lengths to provide reclosability for the pouch 10. A non-peelable upper seal 36 is provided along the upper edge of the pouch between upper portions 35, 37 of the closure members 24 and 26. A plurality of gripper beads 38 extend longitudinally above the zipper profiles 32, 34 on the respective closure members 24 and 26 between the zipper profiles and the upper seal 36. In the illustrated embodiments, each closure member has a single pair of gripper beads 38 formed thereon to facilitate manual gripping and separation of the fastener profiles 32 and 34.

Extending longitudinally beneath the zipper profiles and parallel thereto is a hermetic peelable seal 39. The peelable seal is comprised of strips of polymeric material 39a, 39b on the respective closure members 24 and 26. The strength of the seal 39 is such that it can be readily opened by application of manual outward force to the closure members 24 and 26 by the consumer, but is not susceptible to accidental opening due to normal stresses associated with product containment during the FFS.
operation, and subsequent shipping, handling, and display. The seal preferably has an opening force of from about 1.5 to about 6.0 lbs., and more preferably from about 2.5 to about 3.5 lbs. The peelable seal 39 is substantially impermeable to air, as well as to liquids which may be present in the pouch. Accordingly, the location of the peelable seal interiorly of the zipper profiles 32 and 34 prevents any contents of the pouch from leaking into the zipper profiles and excludes the inter-locking members of the zipper form the hermetic seal area.

The strips of polymeric material 39a, 39b which form the peelable seal preferably comprise polymeric materials which are known in the art to be suitable for this purpose, such as one or more of the following: polyethylene/EVA with a VA content of between 4% and 22%; polybutylene; *Surlyn; *Bynel; *Saran (PVDC) copolymer; ethylene acrylic acid copolymer; or methacrylic acid copolymer. As disclosed in e.g., U.S. Patent No. 4,782,951 a hermetic peelable seal may be formed between a *Saran copolymer lamina and an EVA lamina.

Each of the pouch walls 12 and 14 is preferably made of a suitable laminated material having barrier properties which, when sealed as described herein, provide hermetically for the pouch. For purposes of example, a suitable film for cheese shreds may comprise a linear low-density polyethylene inner layer in combination with a polyester or nylon outer layer, and a middle adhesive layer of polyethylene. A nylon outer layer is particularly useful in connection with Swiss cheese, where a degree of CO₂ gas permeability is desirable in the packaging. The closure members 24 and 26 are preferably made of a low EVA content polyethylene. The closure members may be attached to the walls by, e.g., a thin layer or Surlyn on each of the closure members and the walls.

To facilitate support of the pouch 10 on a display hanger, a hole 86 is provided in an upper portion.

*Trade-mark
of the pouch. The hole extends through upper portions of
the walls 12, 14 and through the closure members 24 and 26,
which provide a relatively tough and strong periphery for
the hole to support the weight of the pouch. As shown in
FIG. 1, one or more of the ribs or beads 38 may extend over
the hole to further increase the ability of the pouch to
resist tearing at the hole 86 when subjected to rough
handling during placement on a retail display rack and/or
removal therefrom. Disposition of the hole above the
peelable seal 39 enables hermeticity to be maintained.
Lines of weakness 88 are formed through the walls 12, 14
and closure members 24, 26 immediately beneath the upper
portions 35, 37 of the closure members to enable the upper
portion of the pouch to be torn off, enabling easy manual
access to the gripper beads 38 for separation of the zipper
profiles 32, 34 and peelable seal strips 39a, 39b. The
lines of weakness 88 in the illustrated embodiment take the
form of perforations formed opposite one another through
the respective walls and closure members. The placement of
the perforations 88 above the hole 86 enables the pouch to
be supported by a display rack without subjecting the line
of perforations 88 to transverse tensile stresses which
might cause accidental tearing thereof.

FIG. 5 illustrates a pouch 41 in accordance with
a second embodiment of the invention. The pouch of FIG. 5
is generally similar to that of FIGS. 1-4, in that it
comprises a pair of generally rectangular walls 40 and 42,
in combination with a pair of closure members 44 and 46
having interlocking zipper profiles 48 and 50 thereon.
Gripper beads 52 are provided above the zipper profiles and
a peelable seal 54 extends therebelow. The walls 40 and 42
are sealed to one another along their bottom edges 56, 58
and side edges. However, the pouch of FIG. 5 differs from
that of FIGS. 1-4 in that its upper seal 64 is formed
directly between the walls 40 and 42 of the pouch, rather
than between the closure members. To this end, the closure
members 44 and 46 are spaced beneath the upper edges of the
walls 40 and 42, leaving a peripheral area along the top of each wall for the upper seal 42. As in the embodiment of FIGS. 1-4, a hole for receiving a display hanger is punched through an upper portion of the pouch, and lines of weakness, e.g., perforations 65, are provided opposite one another in the walls immediately beneath the seal area 64.

In accordance with a third embodiment of the invention (not shown) the walls of the pouch may be constructed of a single web, rather than two separate webs. The pouch in accordance with this embodiment is substantially similar to that of FIG. 5, except that the pouch material is continuous along its upper edge, rather than comprising two separate walls joined by a seal, and the pouch material provides a snug fit around the upper edges of the closure members 44 and 46. As in the other embodiments, a hole for receiving a display hanger is disposed adjacent the top of the pouch, with lines of perforation therebeneath.

FIGS. 6 and 7 illustrate a method and apparatus for forming, filling and sealing pouches in accordance with a preferred embodiment of the invention. As described below, the pouches are formed, filled and sealed in an inverted configuration. The method will be described with reference to the pouch 10 described above with reference to FIGS. 1-4, by describing the successive steps involved in the formation, filling and sealing of the pouch 10 in its inverted configuration.

In the embodiment of FIGS. 6 and 7, the material for the walls is provided by first and second rolls 66 and 68 of suitable laminated film in web form. The material for the closure members is provided by first and second rolls 70 and 72 of closure strip material. The wall material as supplied by rolls 66 and 68 comprises webs 90 and 92 of laminated polymeric material. The closure strip material comprises a first continuous strip 94 having a female zipper profile thereon, and a second strip 96 having a male profile thereon.
The first step in the method of FIGS. 6 and 7 is mating the complementary zipper profiles 32 and 34, i.e., pressing the zipper profiles into interlocking engagement with one another. This step is carried out at a zipper-assembly station 74 which comprises a shoe 75 having an internal surface 76 configured to maintain the opposite profiles in alignment relative to one another, and to cam the closure strips 94 and 96 into interlocking engagement as they advance through the shoe.

The next step is to form the peelable seal 39 between the closure members 24 and 26 at a sealing station 78. At the sealing station 78, a pair of horizontally oriented, reciprocable heat seal bars 79 are advanced toward one another to apply pressure and heat to the lower portions of the closure members which are to form the peelable seal 39. The advancement of the closure strip material is intermittent, so that the strip material is at rest while the heat seal bars 79 are closed.

The next step comprises sealing of the outer surfaces of the closure strips 94 and 96 to the inner surfaces of their respective associated wall webs 90 and 92. This is accomplished at an assembly/sealing station 80 at which a second pair of horizontal heat sealing bars 81 are employed to effect the desired sealing. The closure strips are positioned along the lower edges of the wall webs as the pouch is formed in its inverted configuration, so that they will extend across the top of the finished pouch in its upright configuration.

The line of weakness 88 is then formed by a conventional notched perforation wheel on the line at a perforation station 140. Next, the side margins of the pouches are sealed by vertical sealing bars 82. In forming the side seals, the sealing bars 82 crush the closure strips at the areas 84 which correspond to the ends of the closure members 24 and 26 in the finished pouch. The sealing bars provide an impermeable marginal seal area on each side of the pouch being formed, along the entire
vertical dimension of the pouch, or at least from the bottom edges 16, 18 of the walls through the peelable seal 54. The vertical sealing bars 82 preferably include cutting elements to form vertical slits 139 in the wall webs 90 and 92, extending upward from the bottom edges of the respective wall webs to a predetermined level, leaving links 141 of wall material intact along the upper edges of the wall webs, while partially separating the pouches from one another.

The peelable seal 39 having been formed between the closure members, the formation of the side seals enables product 100 to be retained in each of the pouches being formed. The as-yet-unsealed bottom 98 of the inverted pouch is held open to provide an opening to receive the product, and the pocket is filled to a desired level through a dispensing spout 102, with the peelable seal 29 preventing the product from reaching the zipper. The inverted pouch is then gas flushed with N\textsubscript{2} or CO\textsubscript{2}, closed, and sealed along its horizontal top and bottom edges by additional horizontally-oriented sealing bars 104 and 106. The pouch 10 is cut from the preceding and succeeding pouches by vertically oriented knives 108 which sever the links 141 and trim the side edges of the pouches, to complete the FFS operation.

Where a punched hole 86 is desired, punch apparatus 142 may be provided at a convenient location on the line. In the apparatus of FIGS. 6 and 7, the punching operation takes place immediately after sealing of the vertical seals of the pouch, and prior to filling. In other embodiments of the invention, the order of the steps may be varied. For example, in the embodiment of FIG. 8, first and second webs 110, 112 of wall material are provided by first and second rolls 114 and 116, which are supported for rotation about vertical axes. Material for closure members is provided by first and second rolls 118 and 120 of closure strip material. One roll supplies
closure strip 122 having a female profile, while the other provides material 124 having a male profile.

In the embodiment of FIG. 8, the lengths of closure strip material 122 and 124 are joined to their respective associated webs of wall material 110 and 112 at two parallel heat sealing stations 126 and 128. The resulting composite webs of wall and fastener material 130 and 132 then advance over vertical guide rollers 134 and 136 to a sealing assembly station 138 where the zipper profiles of the closure material are interlocked, and the peelable seal formed in a manner similar to that described above with reference to the embodiment of FIGS. 6 and 7. The remaining steps of forming the side seal, filling, forming top and bottom seals, and separating the finished pouches are carried out as described in the embodiment of FIGS. 6 and 7.

In another embodiment (not shown) the formation of the peelable seal is combined with the operation of sealing the fastener strips to the webs of wall material. This method is similar to that of FIGS. 6 and 7, except that the sealing station 78 may be eliminated, and the assembly/sealing station 80 adapted to provide heat and pressure to effect both sealing operations simultaneously.

From the foregoing, it will be appreciated that the invention provides a novel pouch and discloses a method and apparatus for forming, filling and sealing the pouch. The invention is not limited to the embodiments described above or to any particular embodiments. The invention is more particularly pointed out in the following claims.
THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. In combination, a quantity of shredded cheese and a generally rectangular pouch for containing said shredded cheese comprising:
   a pair of generally rectangular walls, each wall having a top edge, a bottom edge, and a pair of side edges;
   said walls being joined by heat seals along their bottom and side edges;
   said pouch having a fastener comprising a pair of fastener strips attached to opposite inner surfaces of upper portions of said walls and extending a width of the pouch between the side edges of said generally rectangular walls;
   said fastener strips having complementary mechanically interengageable fastener members thereon;
   said fastener further having a peelable seal between the two fastener strips extending the length of said fastener strips beneath said fastener members, said fastener strips being bonded to the walls at the location of the peelable seal;
   said pouch further comprising means defining a hole through said pouch above said fastener members, and means defining a line of weakness above said hole to facilitate opening of the pouch by tearing away an upper portion thereof.

2. The combination in accordance with claim 1 further comprising a horizontal top seal disposed above said line of weakness.

3. The combination in accordance with claim 2 wherein at least one of said fastener strips has at least one horizontal bead extending therealong above said complementary
mechanically interengageable fastener members and above said hole, below said line of weakness.

4. In combination, a quantity of shredded cheese and a generally rectangular pouch for containing said shredded cheese comprising:
   a pair of generally rectangular sidewalls, each sidewall having an upper end, a pair of side edges and a lower end;
   said sidewalls being integrally joined along a fold at their upper ends and joined by heat seals along their side edges and lower ends;
   said pouch having a pair of closure strips attached to opposite inner surfaces of upper portions of said sidewalls and extending a width of the pouch between the side edges of said generally rectangular sidewalls;
   said closure strips having complementary mechanically interengageable closure components thereon;
   said closure strips further having a peelable seal between the two closure strips extending the length of said closure strips beneath said complementary mechanically interengageable closure components, said closure strips being bonded to the walls at the location of the integral peelable seal strips;
   said pouch further comprising means defining a hole through said pouch above said closure strips, and means defining a line of weakness above said hole to facilitate opening of the pouch by tearing away an upper portion thereof.

5. A combination in accordance with claim 4 wherein the closure strips have a thickness between 0.008 inch to 0.010 inch in the region above the closure components to provide
increased structural integrity to the pouch in the region of the pouch opening.

6. A generally rectangular pouch for containing shredded cheese, comprising:
   a pair of generally rectangular sidewalls, each sidewall having an upper end, a pair of side edges and a lower end;
   said sidewalls being integrally joined along a fold at their upper ends and joined by heat seals along their side edges and lower ends;
   said pouch having a pair of closure strips attached to opposite inner surfaces of upper portions of said sidewalls and extending a width of the pouch between the side edges of said generally rectangular sidewalls;
   said closure strips having complementary mechanically interengageable closure components thereon;
   said closure strips further having a peelable seal extending the length of said closure strips beneath said complementary mechanically interengageable closure components;
   said pouch further comprising means defining a hole through said pouch above said closure strips, and means defining a line of weakness above said hole to facilitate opening of the pouch by tearing away an upper portion thereof;
   wherein the closure strips have a lower flange layer and peelable seal layer in the region below the closure components, with the thickness of the portion below the closure strips being less than 0.006 inch to provide good heat conduction through the base layer to the peelable seal layer.

7. In combination, a quantity of shredded cheese and a generally rectangular pouch for containing said shredded cheese comprising:
a pair of generally rectangular walls, each wall having a top edge, a bottom edge, and a pair of side edges; said walls being joined by heat seals along their bottom and side edges;
said pouch having a pair of fastener strips attached over at least a portion thereof to opposite inner surfaces of upper portions of said walls and extending a width of the pouch between the side edges of said generally rectangular walls;
said fastener strips having complementary mechanically interengageable fastener members thereon;
said fastener strips further having peelable seal strips at a predetermined location thereon which seal the fastener strips to each other between the complementary mechanically interengageable fastener members and the shredded cheese to define a hermetic seal area containing said shredded cheese and preventing any contents of said pouch from leaking into the complementary mechanically interengageable fastener members,
said fastener strips being bonded to said walls at the location of said peelable seal strips.

8. A generally rectangular pouch for containing shredded cheese comprising:
a pair of generally rectangular walls, each wall having a top edge, a bottom edge; and a pair of side edges;
said walls being joined by heat seals along their bottom and side edges;
said pouch having a pair of fastener strips attached over at least a portion thereof to opposite inner surfaces of upper portions of said walls and extending a width of the pouch between the side edges of said generally rectangular walls;
said fastener strips further having peelable seal strips integral with the fastener strips, with the strips peelably sealed to one another and extending the length of the fastener strips, and the fastener strips bonded to the walls at the location of the integral peelable seal strips;

said pouch further comprising means defining a hole through said pouch above said fastener members, and means defining a line of weakness above said hole to facilitate opening of the pouch by tearing away an upper portion thereof;

wherein the fastener strips further include integral ribs opposite the integral peelable seal strips.

9. The pouch in accordance with claim 7 wherein the fastener strips are attached to the sidewalls over a substantial portion of the fastener strips not including the portion of the fastener strips at which the mechanically interengageable fastener members are located.

10. A generally rectangular pouch for containing shredded cheese, comprising:

a pair of generally rectangular sidewalls, each sidewall having a top edge, a pair of side edges and a lower end;
said sidewalls being joined along their lower ends and along their side edges;
said pouch having a pair of closure strips attached to opposite inner surfaces of upper portions of said sidewalls and extending a width of the pouch between the side edges of said generally rectangular sidewalls; and

said closure strips having respective flanges which are bonded over a substantial portion thereof to respective sidewalls, with the flanges having integral complementary mechanically interengageable closure components and integral peelable seal strips extending the length of said fastener
strips;
the flanges further including integral ribs opposite the integral peelable seal strips.

11. The pouch in accordance with claim 10 wherein the flanges are attached to the sidewalls over a substantial portion of the flanges not including the portion of the flanges at which the mechanically interengageable fastener members are located.