A Re-useable Frozen Food Impermeable Wrapper that when filled with water, refrigerant gel, ice-forming liquid or like substance and placed over the top surface of food contents in a food container of any size, because of its slight weight, automatically molds to the shape of the food contents and to the sides of the food container. When placed in the freezer portion of a refrigerator the Wrapper freezes which effectively minimizes the ability for air to directly get in contact with the food contents and create freezer burn. The Wrapper has handles that facilitate lifting of the Wrapper out of the food container. If water is to be filled in the Wrapper then it is suggested that the Wrapper have a re-closeable tab that allows the Wrapper to be refilled. If refrigerant gel, ice-forming liquid or like substance is used then a re-closeable tab is not needed. In all the cases above the Wrapper is re-useable, watertight and lead-proof.
RE-USEABLE FROZEN FOOD IMPERMEABLE WRAPPER

BACKGROUND OF THE INVENTION

[0001] The invention is a Re-useable Frozen Food Impervious Wrapper (Wrapper) that when filled with water, refrigerant gel, ice-forming liquid or like substance automatically molds and takes to the shape of the food contents in a food container. The Wrapper becomes solid when placed in the freezer portion of a refrigerator to reduce the ability for air to directly get in contact with the food contents. The Wrapper presses against the sides of the food container thereby restricting air circulation.

[0002] The Wrapper can be used in any container of any size and on any type of food that would be frozen. The Wrapper is made of a thin plastic type material. If water is used to fill the Wrapper then the Wrapper will have a re-closeable tab opening that allows water to be placed inside the Wrapper, which allows it to be refilled and reused. If refrigerent gel, ice-forming liquid or like substance is used then the Wrapper would not have a re-closeable tab opening as the refrigerent gel, ice-forming liquid or like substance would not have to be replaced. The Wrapper may freeze to an ice solid form or near-ice form when placed in the freezer portion of a refrigerator. This being an optional feature. Once water, refrigerent gel, ice-forming liquid or like substance is added to the Wrapper, because of its slight weight, it automatically molds to the food contents of the food container and the side of the food container, leaving no room for air circulation between the Wrapper and the food contents. The Wrapper will be dishwasher safe.

[0003] The Wrapper’s purpose is to eliminate (or reduce) freezer burn, which is formed by a layer of frost and ice crystals on the top layer of food when it comes into contact with air in a freezer portion of a refrigerator. Ice crystals that form on the top of frozen food cannot be fully prevented; however proper wrapping of frozen foods can minimize this effect.

[0004] To eliminate air contact with the frozen food contents in a food container, the Wrapper would rest directly on top of the frozen food within the food container automatically molding to the shape of the top of the food contents and resting closely against the sides of the food container.

[0005] U.S. Pat. No. 6,817,480 to Baldasio discloses a Receptacle Covering Device that provides a means to cover ice cream in ice cream containers. Disadvantages: Receptacle Covering Device does not provide an airtight seal. Product’s use is limited to ice cream in ice cream containers.

[0006] U.S. Pat. Application No. 20030190393 to Johnson discloses a Flexible Food Seal that provides a flexible food seal for creating an airtight seal over food stored in a food storage container. Disadvantages: Flexible Food Seal does not mold to the food contents automatically. Product does not account for the situation of frozen food in a freezer portion of a refrigerator. Product has to be cut to the size of the food container. Products edges need to be physically bent to make it capable of conforming to the shape of the container to make an airtight fit.

[0007] U.S. Pat. Application No. 20040091702 and 20020081411 to Hamilton discloses a Storage Wrap Material that can be used to cover food. Disadvantages: Storage Wrap Material is a different product that does not automatically mold to the shape of the food contents. It also does not freeze when placed in a freezer portion of a refrigerator to add additional freezing capabilities.

[0008] While these units (para 5, 6 and 7) may be suitable for the particular purposes employed, or for general use, they would not provide the same distinct advantages as is suitable for the purposes of the present invention as disclosed hereafter.

SUMMARY OF THE INVENTION

[0009] In view of the foregoing disadvantages inherent in the prior art, the present invention provides an improved Re-useable Frozen Food Impervious Wrapper that due to its design automatically takes the shape of the food contents in the food container, and its advantages include ease of use since it does not have to be cut to the shape or size of each and every sized food container. As such, the general purpose of the present invention, which will be described subsequently in greater detail, is to provide a new and improved Re-useable Frozen Food Impervious Wrapper, which has all the advantages of the prior art and none of the disadvantages.

[0010] To attain this, the present invention essentially comprises a Re-useable Frozen Food Impervious Wrapper for use with any food container to be used in the freezer portion of a refrigerator. The Wrapper is sized slightly larger than the inside diameter of the sidewall of a food container. The Wrapper is comprised of two equal flat portions, side portions all around, adjoined on all sides. A hollow middle section is where water is placed, or refrigerent gel, ice-forming liquid or like substance is contained. In the case of water, a small re-closeable tab opening is found on the top flat portion to allow water to be filled and emptied as needed. Alternatively, the Wrapper could contain no opening and no re-closeable tab and be pre-filled with a refrigerent gel, ice-forming liquid or a like substance, instead of water, that will maintain its durability and allow for its re-use. In either situation the Wrapper is re-useable.

[0011] If water is used to fill the Wrapper, the Wrapper is first filled with water and sealed shut with the re-closeable tab opening. Similarly in the case of refrigerent gel, ice-forming liquid or like substance. It is then placed on top of the food in the food container to fit the top surface of the span between the food container top opening and side wall, leaving no space between the Wrapper flat bottom and side portion periphery and the food container side wall and leaving no space between the food contents and the Wrapper.

[0012] The effect of the water (unfrozen) and the permeable nature of the Wrapper is to mold its shape automatically to the food contents in the food container, thereby eliminating virtually all air between the Wrapper and the food contents. After a time period in the freezer portion of the refrigerator, the water in the Wrapper will freeze, forming a solid block of ice over the food contents, providing reduced air contact with the food and giving the Wrapper the ability to maintain its shape, and adding prolonged and enhanced freezing capabilities.
The re-closeable tab and opening, in addition to allowing the Wrapper to be filled with water, can be shaped in such a way as to assist a user (person) in lifting the Wrapper out of the food container when access to its contents is desired. Alternatively, in addition to the re-closeable tab and opening the Wrapper may contain one or more molded handles on the top of the Wrapper, that enable a person to easily remove the Wrapper from the food container.

In the case of water used as the filler for the Wrapper. After use the Wrapper can be left out of the refrigerator until it thaws, at which time the defrosted water can be removed. The Wrapper can then be washed if needed, stored flat and reused by refilling it with fresh water.

More than one re-closeable tab opening separated by dividers (to make compartments) to keep the water, refrigerant gel, ice-forming liquid or like substance from being displaced too much to one or either side of the Wrapper, for larger food containers may be incorporated into the Wrapper's design. The number of compartments and re-closeable tab openings is dependent on the sizes of the Wrappers and food containers, and will be formulated to various sizes to ensure that the Wrapper provides sufficient coverage over the food contents in the most standard sized personal and commercially used food containers.

It is an object of the present invention to provide a Wrapper that reduces the amount of air circulation within the food container in order to reduce freezer burn on the food contents in the food container. Accordingly, the Wrapper will be sized to fit within the food container no matter its size, even if portions of the food are removed, maintaining a tight fit between the Wrapper and the food contents thereby eliminating air circulation. The water, refrigerant gel, ice-forming liquid or like substance help alter the size of the Wrapper automatically.

The present invention will be constructed of a flexible plastic slightly thicker and more durable than plastic wrap. The Wrapper portion that is in contact with the food contents may be made of or coated with a non-stick material so that the food contents do not stick to the Wrapper during the freezing process in the freezer portion of the refrigerator. The Wrapper may be made of a transparent plastic material so that food contents can be seen through it. The Wrapper will be sold in various sizes to fit the typical shapes of food containers. The Wrapper can be placed over any type of food solid or liquid form in the food container.

An advantage of the present invention is that it may be used to preserve and prolong the life of all types of food that are to be frozen in the freezer portion of a refrigerator and in all types of food storage containers, including the original jars or containers in which the food was purchased, plastic or glass or other types of food storage containers kept in the home, bowls or glasses or dishes in which food may be stored, or any other type of container that will hold food.

A major advantage of the present invention is that the Wrapper automatically conforms or molds to the shape of the food container and the food contents.

To the accomplishment of the above and related objects the invention may be embodied in the form illustrated in the accompanying drawings. Attention is called to the fact, however, that the drawings are illustrative only, Variations are contemplated as being part of the invention, limited only by the scope of the claims.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings, like elements are depicted by like reference numerals. The drawings are briefly described as follows.

FIG. 1 is a perspective view of the Re-useable Frozen Food Impermeable Wrapper installed in a rectangular food container, illustrating the close contact with the food contents, lifting handles, re-closeable tabs and divider. In addition, the edges and bottom portion of the Wrapper are shown conforming to the food contents and side edges of the food container, after the Wrapper is filled with water.

FIG. 2 is a perspective view of the Re-useable Frozen Food Impermeable Wrapper installed in a circular food container, illustrating the close contact with the food contents, lifting handles, and re-closeable tab. In addition, the edges and bottom portion of the Wrapper are shown conforming to the food contents and side edges of the food container, after the Wrapper is filled.

FIG. 3 is a side cross sectional view of the Re-useable Frozen Food Impermeable Wrapper, after it is filled with water, and is ready to be installed partway down the food container after the food contents are partially consumed from the food container.

FIG. 4 is a side cross sectional view of the Re-useable Frozen Food Impermeable Wrapper as it might be installed after the food contents are partially consumed from the food container. The Re-useable Frozen Food Impermeable Wrapper is placed on the top surface of the food contents in a food container after the Wrapper is filled with water through the re-closeable tab opening.

FIG. 5 is a side cross sectional view of the Re-useable Frozen Food Impermeable Wrapper that does not have a re-closeable tab opening, but that is filled with a refrigerant gel, ice-forming liquid or like substance. Wrapper also shows handles that may or may not be a part of the Wrappers final commercial design.

FIG. 6 is a side cross sectional view of the Re-useable Frozen Food Impermeable Wrapper that has a re-closeable tab that also has a handle that can be used to help with lifting the Wrapper out of the food container when a user desires to access the food contents.

FIG. 7 is a top view of a re-closeable tab with the handle shown bent down flat with the re-closeable tab. The handle would lift up as needed.

FIG. 8 is a side cross sectional view of the Re-useable Frozen Food Impermeable Wrapper that has a side-to-side handle (joined on either end of the Wrapper). More than one of these handles on any one Wrapper may be contemplated or needed to facilitate lifting of the frozen Wrapper out of the food container.

REFERENCE NUMERALS

10 food container (rectangular or square)
12 food container (circular)
reducing freezer burn of the food contents during storage in a freezer portion of a refrigerator. The invention is illustrated by example in the drawing figures, and throughout the written description. It should be understood that numerous variations are possible, while adhering to the inventive concept. Such variations are contemplated as being a part of the present invention.

What is claimed is:

1. A Re-useable Frozen Food Impermeable Wrapper (Wrapper) that automatically molds and forms to the shape of food contents in a food container once placed on top of the food contents. The Wrapper also conforms to the sides of the food container. Once the container and Wrapper are in the freezer portion of a refrigerator the Wrapper becomes solid (solidifies to ice or near ice form) which reduces the amount of air that comes in contact with the food contents in the food container.

2. The Wrapper of claim 1 is formed from an impermeable material, such as thin plastic material that is capable of allowing its base (bottom flat portion) to mold and conform to the shape upon which it rests, in this case food contents in a food container. In addition it creates an airtight seal against the sides of the food container to which it is in contact with. Water, refrigerant gel, ice-forming liquid or like substance when added to the Wrapper, creates a slight weight that makes it mold and conform to the shape of the food contents in the food container.

3. The Wrapper of claim 1 is made watertight so that once filled its contents does not leak onto the food contents in the food container.

4. The Wrapper of claim 1 has one or more dividers to enable its effective usage in large food containers. Depending on the food container size, the Wrapper of claim 1 may have no divider.

5. The Wrapper of claim 1 has one or more handles to enable it to be easily removed from the food container. Various types of handles are contemplated, including smaller individual handles wherein a user can slip their fingers to grasp the Wrapper, or side-to-side handles wherein a user can grasp the handles with more than one finger.

6. The Wrapper of claim 1 can be placed at any level in the food container.

7. The Wrapper of claim 1, wherein the food container is in the shape of a rectangle, circle, square, oval, triangle or other shape.

8. The Wrapper of claim 1 will have a depth (height from top portion to bottom portion) that may vary anywhere from more than 1 millimeter to as much as a few inches, depending on the size of the container and type of food contents.