Claims

[Claim 1] A package discharge member used for discharging food contents and provided at the end of a package capable of holding food contents and of being mounted on a dispenser for extruding food contents, the package discharge member comprising:

an outer frame having an opening in the center thereof;

a cap that closes the opening in the outer frame, and can open the opening by being pulled; and

a sheet disposed on the reverse surface of the outer frame and the cap and formed with a discharge hole in the form of slits to allow passage of the food contents,

wherein the sheet and the outer frame are welded together,

metallocene polyethylene is used as a material of the outer frame, and

polypropylene is used as a material of the sheet.

[Claim 2] The package discharge member according to Claim 1, wherein the outer frame and the cap are welded together, and polyethylene is used as a material of the cap.

[Claim 3] A method for manufacturing a package discharge member used for discharging food contents and provided at the end of a package capable of holding food contents and of being mounted on a dispenser for extruding food contents, the method comprising:

a first step of injection molding an outer frame having an opening for a cap on a sheet formed with a discharge hole in the form of slits to allow passage of the food contents; and

a second step of injection molding, on the sheet, the cap whereby the opening in the outer frame can be opened,

wherein molding in the first and second steps is continuous two-color

injection molding in which the sheet is mounted in a mold and an upper mold part is replaced while the sheet is held in a same lower mold part,

metallocene polyethylene is used as a material of the outer frame, and

polypropylene is used as a material of the sheet.

[Claim 4] The method for manufacturing a package discharge member according to Claim 3, wherein polyethylene is used as a material of the cap.

[Claim 5] The method for manufacturing a package discharge member according to Claim 3 or 4, wherein injection molding in the first step is performed at a temperature of from 180°C to 250°C, inclusive.

[Claim 6] A package, comprising:

the package discharge member according to Claim 1 or 2; and

a deformable tube connected to the outer frame of the discharge member,

wherein the tube is formed of a multilayer film, and polyethylene is used as a material of an innermost layer of the multilayer film.

[Claim 7] A packaged food product comprising a viscous food product packed and sealed in the package according to Claim 6.

[Claim 8] The package discharge member according to Claim 1 or 2,

wherein the outer frame has a ring-shaped plate and a ring-shaped side wall extending from the outer edge of this plate towards the rear.

[Claim 9] The package discharge member according to Claim 8,

wherein the cap has a removable pull-tab and a ring-shaped protrusion,

the ring-shaped protrusion being disposed around the pull-tab and extending forwards from the plate of the outer frame.

[Claim 10] The package discharge member according to Claim 8, wherein the sheet has a larger diameter than the cap, and is welded to the reverse side of the plate of the outer frame so as to cover the reverse surface of the cap.

[Claim 11] The package discharge member according to Claim 1or 2, wherein the thickness of the sheet is from 0.2 mm to 0.5 mm, inclusive.

[Claim 12] The package discharge member according to Claim 1 or 2, wherein the metallocene polyethylene is metallocene linear low-density polyethylene with a density (JIS K 7112) in the range of from 0.91 g/cm^3 to 0.94 g/cm^3 ,inclusive and a softening point of from 100°C to 130°C, inclusive.

[Claim 13] The method for manufacturing a package discharge member according to Claim 5, wherein the injection molding in the secondary molding step is performed at a temperature from 10°C to 30°C ,inclusive lower than that of the first molding step.

[Claim 14] The method for manufacturing a package discharge member according to Claim 13, wherein the injection molding in the secondary molding step is performed at a temperature of from 170°C to 240°C, inclusive.

[Claim 15] The method for manufacturing a package discharge member according to Claim 3 or 4, wherein the metallocene polyethylene is metallocene linear low-density polyethylene with a density (JIS K 7112) in the range of from 0.91 g/cm^3 to 0.94 g/cm^3 ,inclusive and a softening point of from 100°C to 130°C, inclusive.

CLAIMS

1. A package discharge member used for discharging food contents and provided at the end of a package capable of holding food contents and of being mounted on a dispenser for extruding food contents, the package discharge member comprising:

an outer frame having an opening in the center thereof;

a cap that closes the opening in the outer frame, and can open the opening by being pulled; and

a sheet disposed on the reverse surface of the outer frame and the cap and formed with a discharge hole in the form of slits to allow passage of the food contents,

wherein the sheet and the outer frame are welded together,

metallocene polyethylene is used as a material of the outer frame, and

polypropylene is used as a material of the sheet.

2. The package discharge member according to Claim 1, wherein the outer frame and the cap are welded together, and polyethylene is used as a material of the cap.

3. The package discharge member according to Claim 1 or 2, wherein the outer frame has a ring-shaped plate and a ring-shaped side wall extending backward from an outer edge of the plate.

4. The package discharge member according to Claim 3, wherein the cap has a removable pull-tub and a ring-shaped protrusion which is disposed around the pull-tub and extending forward from the plate of the outer frame.

5. The package discharge member according to Claim 3 or 4, wherein the sheet has a larger diameter than the cap, and wherein the sheet is welded to the reverse surface of the plate of the outer frame so as to cover the reverse surface of the cap.

6. The package discharge member according to any of Claims 1 to 5, wherein the sheet has a thickness of 0.2 mm to 0.5 mm.

7. The package discharge member according to any of Claims 1 to 6, wherein the metallocene polyethylene is metallocene linear low-density polyethylene with a density (JIS K 7112) of 0.91 g/cm^3 to 0.94 g/cm^3 and a softening point of 100°C to 130°C.

8. A method for manufacturing a package discharge member used for discharging food contents and provided at the end of a package capable of holding food contents and of being mounted on a dispenser for extruding food contents, the method comprising:

a first step of injection molding an outer frame having an opening for a cap on a sheet formed with a discharge hole in the form of slits to allow passage of the food contents; and

a second step of injection molding, on the sheet, the cap whereby the opening in the outer frame can be opened,

wherein molding in the first and second steps is continuous two-color injection molding in which the sheet is mounted in a mold and an upper mold part is replaced while the sheet is held in a same lower mold part,

metallocene polyethylene is used as a material of the outer frame, and

polypropylene is used as a material of the sheet.

9. The method for manufacturing a package discharge member according to Claim 8, wherein polyethylene is used as a material of the cap.

10. The method for manufacturing a package discharge member according to Claim 8 or 9, wherein injection molding in the first step is performed at an injection molding temperature of 180°C to 250°C.

11. The method for manufacturing a package discharge member according to Claim 10, wherein injection molding in the second step is performed at a temperature 10°C to 30°C lower than the injection molding temperature in the first step.

12. The method for manufacturing a package discharge member according to Claim 11, wherein injection molding in the second step is performed at an injection molding temperature of 170°C to 240°C.

13. The method for manufacturing a package discharge member according to any of Claims 8 to 12, wherein the metallocene polyethylene is metallocene linear low-density polyethylene with a density (JIS K 7112) of 0.91 g/cm^3 to 0.94 g/cm^3 and a softening point of 100°C to 130°C.

14. A package, comprising:

the package discharge member according to any of Claims 1 to 7; and

a deformable tube connected to the outer frame of the discharge member,

wherein the tube is formed of a multilayer film, and polyethylene is used as a material of an innermost layer of the multilayer film.

15. A packaged food product comprising a viscous food product packed and sealed in the package according to Claim 14.