INSULATED CONTAINER

PRIORITY CLAIM

[0001] This application claims priority under 35 U.S.C. § 119(e) to U.S. Provisional Applications Serial No. 61/498,455, filed June 17, 2011 and Serial No. 61/618,587, filed March 30, 2012, which are expressly incorporated by reference herein.

BACKGROUND

[0002] The present disclosure relates to vessels, and in particular to insulated containers, such as cups, for containing hot or cold beverages or food. More particularly, the present disclosure relates to an insulated cup formed from polymeric materials.

SUMMARY

[0002A] The present disclosure provides an insulative cup comprising

a body including a sleeve-shaped side wall and

a floor coupled to the body to define an interior region bounded by the sleeve-shaped side wall and the floor, wherein the body comprises a sheet comprising insulative cellular non-aromatic polymeric material configured to provide means for enabling localized plastic deformation in at least one selected region of the body to provide a plastically deformed first material segment having a first density located in a first portion of the selected region of the body and a second material segment having a second density lower than the first density located in an adjacent second portion of the selected region of the body without fracturing the insulative cellular non-aromatic polymeric material so that a predetermined insulative characteristic is maintained in the body.,

wherein the insulative cellular non-aromatic polymeric material comprises a polypropylene base resin having a high melt strength, a polypropylene homopolymer resin, at least one nucleation agent, and gas means for expanding the resins to reduce density.

[0003] A vessel in accordance with the present disclosure is configured to hold a product in an interior region. In illustrative embodiments, the vessel is an insulated container such as a drink cup, a food-storage cup, or a dessert cup.

[0004] In illustrative embodiments, an insulative cup includes a body having a sleeve-shaped side wall and a floor coupled to the body to cooperate with the side wall to form an interior region for storing food, liquid, or any suitable product. The body also includes a rolled brim coupled to an upper end of the side wall and a floor mount coupled to a lower end of the side wall and to the floor.

[0005] In illustrative embodiments, the body is made of a sheet comprising an insulative cellular non-aromatic polymeric material. In some embodiments of the present disclosure, the body is made of a multi-layer sheet including a substrate layer comprising the insulative cellular non-aromatic polymeric material and an outer layer comprising a skin coupled to the substrate layer and configured to display artwork and text. In other embodiments of the present disclosure, such text and artwork are printed directly on an exterior surface of the insulative cellular non-aromatic polymeric material. In illustrative embodiments, the floor also comprises insulative cellular non-aromatic polymeric material.

[0006] The insulative cellular non-aromatic polymer material included in the body is configured in accordance with the present disclosure to provide means for enabling localized plastic deformation in at least one selected region of the body (e.g.,