a compressively stressed layer extending from the outer surface of the body into the wall thickness, the compressively stressed layer having a surface compressive stress greater than or equal to 150 MPa; and

a lubricous coating positioned around at least a portion of the outer surface of the body, wherein the outer surface of the body with the lubricous coating has a coefficient of friction less than or equal to 0.7 relative to a like-coated glass container as determined with a vial-on-vial jig, the transient coating comprising one or more of an inorganic salt, a polysaccharide, or combinations thereof, wherein a light transmission through the glass container with the lubricous coating is greater than or equal to about 55% of a light transmission through an uncoated glass container for wavelengths of light from about 400 nm to about 700 nm, and the lubricous coating is a tenacious inorganic coating comprising at least one of TiN, BN, hBN, TiO_2, Ta_2O_5, HfO_2, Nb_2O_5, V_2O_5, SnO, SnO_2, ZrO_2, Al_2O_3, SO_2, ZnO, MoS_2, BC, SiC, and diamond-like carbon.

[0008] A glass container may include a body having an inner surface, an outer surface and a wall thickness extending between the outer surface and the inner surface. The body may be formed from a Type 1, Class B glass according to ASTM Standard E438-92. A compressively stressed layer may extend from the outer surface of the body into the wall thickness. The compressively stressed layer may have a

surface compressive stress greater than or equal to 150 MPa. A lubricous coating may be positioned around at least a portion of the outer surface of the body. The outer surface of the body with the lubricous coating may have a coefficient of friction less than or equal to 0.7.

~~[0008a] In another aspect, there is provided a glass container comprising:~~

~~a body having an inner surface, an outer surface and a wall thickness extending between the outer surface and the inner surface, wherein the body is formed from a Type 1, Class B glass according to ASTM Standard E438-92;~~

~~a compressively stressed layer extending from the outer surface of the body into the wall thickness, the compressively stressed layer having a surface compressive stress greater than or equal to 150 MPa; and~~

~~a lubricous coating positioned around at least a portion of the outer surface of the body, wherein the outer surface of the body with the lubricous coating has a coefficient of friction less than or equal to 0.7, wherein a light transmission through the glass container with the lubricous coating is greater than or equal to about 55% of a light transmission through an uncoated glass container for wavelengths of light from about 400 nm to about 700 nm.~~

~~[0008b] In yet another aspect, there is provided a glass container comprising:~~

~~a body having an inner surface, an outer surface and a wall thickness extending from the outer surface to the inner surface, wherein the body is formed from a glass composition which is free from constituent components which form species that volatilize significantly at temperatures corresponding to a viscosity in a range from about 200 poise to about 100 kilopoise;~~

~~a compressively stressed layer extending from the outer surface of the body into the wall thickness, the compressively stressed layer having a surface compressive stress greater than or equal to 150 MPa; and~~

~~a lubricous coating around at least a portion of the outer surface of the body, wherein the outer surface of the body with the lubricous coating has a coefficient of friction less than or equal to 0.7, wherein a light transmission through the glass~~

~~container with the lubricous coating is greater than or equal to about 55% of a light transmission through an uncoated glass container for wavelengths of light from about 400 nm to about 700 nm.~~

[0009] Additional features and advantages of the embodiments of the glass containers described herein will be set forth in the detailed description which follows, and in part will be readily apparent to those skilled in the art from that description or recognized by practicing the embodiments described herein, including the detailed description which follows, the claims, as well as the appended drawings.

[0010] It is to be understood that both the foregoing general description and the following detailed description describe various embodiments and are intended to provide an overview or framework for understanding the nature and character of the claimed subject matter. The accompanying drawings are included to provide a further understanding of the various embodiments, and are incorporated into and constitute a part of this specification. The drawings illustrate the various embodiments described herein, and together with the description serve to explain the principles and operations of the claimed subject matter.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] FIG. 1 schematically depicts a cross section of a glass container according to one or more embodiments described herein;

[0012] FIG. 2 schematically depicts a compressively stressed layer in a portion of the sidewall of the glass container of FIG. 1;

[0013] FIG. 3 schematically depicts a portion of the sidewall of the glass container formed from laminated glass;

[0014] FIG. 4 schematically depicts a horizontal compression apparatus for testing the horizontal compression strength of a glass container;

CLAIMS

1. A glass container comprising:

a body having an inner surface, an outer surface and a wall thickness extending between the outer surface and the inner surface;

a compressively stressed layer extending from the outer surface of the body into the wall thickness, the compressively stressed layer having a surface compressive stress greater than or equal to 150 MPa; and

a lubricous coating positioned around at least a portion of the outer surface of the body, wherein the outer surface of the body with the lubricous coating has a coefficient of friction less than or equal to 0.7 relative to a like-coated glass container as determined with a vial-on-vial jig, the transient coating comprising one or more of an inorganic salt, a polysaccharide, or combinations thereof, wherein a light transmission through the glass container with the lubricous coating is greater than or equal to about 55% of a light transmission through an uncoated glass container for wavelengths of light from about 400 nm to about 700 nm, and the lubricous coating is a tenacious inorganic coating comprising at least one of TiN, BN, hBN, TiO_2, Ta_2O_5, HfO_2, Nb_2O_5, V_2O_5, SnO, SnO_2, ZrO_2, Al_2O_3, SO_2, ZnO, MoS_2, BC, SiC, and diamond-like carbon.

~~2. A glass container comprising:~~

~~a body having an inner surface, an outer surface and a wall thickness extending between the outer surface and the inner surface, wherein the body is formed from a Type 1, Class B glass according to ASTM Standard E438-92;~~

~~a compressively stressed layer extending from the outer surface of the body into the wall thickness, the compressively stressed layer having a surface compressive stress greater than or equal to 150 MPa; and~~

~~a lubricous coating positioned around at least a portion of the outer surface of the body, wherein the outer surface of the body with the lubricous coating has a coefficient of friction less than or equal to 0.7, wherein a light transmission through the glass container with the lubricous coating is greater than or equal to about 55% of a light transmission through an uncoated glass container for wavelengths of light from about 400 nm to about 700 nm.~~

~~3. A glass container comprising:~~

a body having an inner surface, an outer surface and a wall thickness extending from the outer surface to the inner surface, wherein the body is formed from a glass composition which is free from constituent components which form species that volatilize significantly at temperatures corresponding to a viscosity in a range from about 200 poise to about 100 kilopoise;

~~a compressively stressed layer extending from the outer surface of the body into the wall thickness, the compressively stressed layer having a surface compressive stress greater than or equal to 150 MPa; and~~

~~a lubricous coating around at least a portion of the outer surface of the body, wherein the outer surface of the body with the lubricous coating has a coefficient of friction less than or equal to 0.7, wherein a light transmission through the glass container with the lubricous coating is greater than or equal to about 55% of a light transmission through an uncoated glass container for wavelengths of light from about 400 nm to about 700 nm.~~

42. The glass container of ~~any of~~ claims 1 ~~through 3~~, wherein the compressively stressed layer extends to a depth of layer greater than or equal to 25 μm.

~~53~~. The glass container of ~~any of~~ claims 1 ~~through 3~~, wherein the body is thermally tempered and the compressively stressed layer extends into the wall thickness to a depth of layer of up to about 22% of the wall thickness.

~~64~~. The glass container of ~~any of~~ claims 1 ~~through 3~~, wherein the body comprises laminated glass and the laminated glass comprises:

a core layer having a core coefficient of thermal expansion CTE_{core}; and

at least one cladding layer fused to the core layer and having a second coefficient of thermal expansion CTE_{clad}, wherein CTE_{core} is not equal to CTE_{clad} and the at least one cladding layer forms the inner surface of the body.

~~75~~. The glass container of ~~any of~~ claim~~s~~ 1 ~~through 3~~, wherein the lubricous coating is thermally stable at a temperature of at least about 260°C for 30 minutes.

8. The glass container of any of claims 1 through 3, wherein the lubricous coating is a tenacious inorganic coating.

9. The glass container of any of claims 1 through 3, wherein the lubricous coating comprises a tenacious organic coating that has a mass loss of less than about 5% of its mass when heated from a temperature of 150°C to 350°C at a ramp rate of about 10°C/minute.

10. The glass container of any of claims 1 through 3, wherein the lubricous coating is a transient coating that pyrolizes at temperatures less than or equal to 300°C in less than or equal to 1 hour.