CLAIMS

1. A container (6) for use with a beverage or foodstuff preparation machine (4), the container (6) comprising:

   a storage portion (58) for containing a precursor material (150);

   a code (44) for storing preparation information used by said machine (4) to process the precursor material (150), the code (44) configured to be readable by a code reading system (18) of the machine (4) which comprises a lighting system (110) to project an emission (114) of greater than 700 nm or 800 nm to the code (44), and the code (44) is configured to be readable when the projected emission (114) to the code (44) is greater than 700 nm or 800 nm and is arranged to absorb and/or reflect the projected emission (114), and;

   an information carrier layer (142) comprising container information that is visible in visible wavelengths and configured to be readable by a user,

   characterized in that the information carrier layer (142) has comparatively low absorbance and/or reflectivity to said projected emission (114) and is arranged in operative proximity to the code layer so that a positional arrangement of the information carrier layer (142) and code (44) is such that the code (44) is concealed or partly concealed by the information carrier layer (142), reducing the visibility of the code (44) in the visible wavelengths compared to the code (44) being present without the information carrier layer (142).

2. The container (6) of claim 1, wherein the information carrier layer (142) has an absorbance to the projected emission (114) of less than 20% and a reflectivity of less than 30% to said projected emission (114).

3. The container (6) of either of claims 1 or 2, wherein:

   the information carrier layer (142) is continuous;

   the information carrier layer (142) adjoins the code (44) and;

   the information carrier layer (142) extends in a plane defined by lateral and longitudinal directions and has a through thickness in a depth direction, which extends from an outer surface, and where the information carrier layer (142) is arranged to overlap the entire code (44) when viewed in said plane.

4. The container (6) of claim 3, wherein the code (44) is proximal most the outer surface relative to the information carrier layer (142).

5. The container (6) of any preceding claim, wherein the information carrier layer (142) extends in a plane defined by lateral and longitudinal directions and has a through thickness in a depth direction and:

   the code (44) comprises an absorber layer (124), which is configured to absorb the projected emission (114) and a reflector layer (126), which is configured to reflect the projected emission (114);

   the reflector layer (126) is configured to reflect visible wavelengths;

   the information carrier layer (142) is arranged in a depth direction between the reflector layer (126) and an outer surface of the closing member (56), and;

   the absorber layer (142) is arranged in a depth direction between the reflector layer (126) and an outer surface of the closing member (56).

6. The container (6) of claim 5, wherein the reflector layer (126) extends in a plane defined by the lateral and longitudinal directions and has a through thickness in a depth direction, and:

   the reflector layer (126) is continuous and overlaps the absorber layer (142) in said plane.

7. The container (6) of any preceding claim, wherein the information carrier layer (142) comprises the one or more objects providing said information formed of one or more different colours.

8. The container (6) of any of claims 5 to 7, wherein:

   the absorber layer (142) is formed of a black ink that comprises carbon;

   the information carrier layer (142) and reflector layer (126) are formed of one or more inks that do not comprise carbon.

9. The container (6) of any claims 5 to 8 comprising a colour layer (146) arranged to impart a background colour, wherein:

   the colour layer (146) is arranged in a depth direction between the reflector layer (126) and an outer surface;

the colour layer (146) is arranged in a depth direction between the reflector layer (126) and the information carrier layer (142);

the colour layer (146) is continuous;

the colour layer (146) is formed of one or more inks that do not comprise carbon, and;

the information colour layer (146) is arranged to overlap the entire information carrier layer (142) when viewed in said plane.

10. The container (6) of any preceding claim, wherein the container (6) is biodegradable as defined with reference to the description.

11. A system comprising the container (6) of any preceding claim and a machine (4) for preparing a beverage or a foodstuff by processing said precursor material (150), the machine (4) comprising:

a code reading system (18) to read said code (44);

a processing unit (14) for processing the material of the container (6) to the beverage or foodstuff, the processing unit (14) comprising a perforator to perforate the closing member (56) of the container (6);

electrical circuitry (16) to control the processing unit (14) to process the container (6) based on the preparation information.

12. A closing member (56) for closing a storage portion (58) of a container (6) for use with a beverage or foodstuff preparation machine (4), wherein the closing member (56) comprises:

a code (44) for storing preparation information used by said machine (4) to process the precursor material (150), the code (44) configured to be readable by a code reading system (18) of the machine (4), which comprises: a lighting system (110) to project an emission (114) of greater than 700 nm or 800 nm on to the code (44), and the code (44) is configured to be readable when the projected emission (114) to the code (44) is greater than 700 nm or 800 nm and is arranged to absorb and/or reflect the projected emission (114), and;

an information carrier layer (142) comprising container information that is visible in visible wavelengths and configured to be readable by a user,

characterized in that the information carrier layer (142) has comparatively low absorbance and/or reflectivity to said projected emission (114) and is arranged in operative proximity to the code layer so that a positional arrangement of the information carrier layer (142) and code (44) is such that the code (44) is concealed or partly concealed by the information carrier layer (142), reducing the visibility of the code (44) in the visible wavelengths compared to the code (44) being present without the information carrier layer (142).

13. Use the closing member (56) of claim 12 for a container (6) containing precursor material (150) for use with a beverage or foodstuff preparation machine (4).

14. A method of forming a closing member (56) for a container (6) for use with a beverage or foodstuff preparation machine (4), the method comprising:

printing a code (44) on a protective layer through which the code (44) of a code layer is readable by a code reading system (18), the code layer is arranged to absorb and/or reflect the projected emission (114) for capturing in a digital image by the camera system operating with a wavelength of above or 700 nm or 800 nm,

printing an information carrier layer (142) on to the protective layer, wherein the information carrier layer (142) is arranged so that a positional arrangement of the information carrier layer (142) and code (44) is such that the code (44) is concealed or partly concealed by the information carrier layer (142), the information carrier layer (142) comprising container information that is visible in visible wavelengths and configured to be readable by a user, and has comparatively low absorbance and/or reflectivity to said projected emission (114), such that the information carrier layer (142) reduces the visibility of the code (44) in the visible wavelengths compared to the code (44) being present without the information carrier layer (142) and;

bonding the layers to a support layer.