CLAIMS

1. A system comprising a container and a machine for preparing a beverage and/or foodstuff thereof,

the container including:

a body portion comprising a storage portion for containing a precursor material;

a closing member to close the storage portion, and;

a machine-readable code storing preparation information,

the machine including:

a code reading system to read the code of the container;

a processing unit for processing the precursor material of the container, and;

electrical circuitry to control the processing unit based on the preparation information read from the code,

wherein the code reading system includes a positioning mechanism to apply a variable loading condition to the container to selectively deform the body portion of the container,

and the code reading system includes a detection system to detect a reading position if a predetermined condition, which is based on a force and/or displacement applied to the container, for reading the code is met,

and if said condition is met, then the electrical circuitry configured to read the code to extract the preparation information in the reading position,

characterized in that the predetermined condition for reading the code comprises a first condition based on a force applied to the container by the positioning mechanism being at a target force or having crossed a target force threshold, and

wherein the force applied is based on an electrical current applied to a drive system for the positioning mechanism.

2. The system of claim 1, wherein the loading condition is variable based on:

a geometric dimension of the container, wherein the geometric dimension is the depth of the body portion from the closing member, and/or

a stiffness of the container.

3. The system of either of claims 1 or 2, wherein the predetermined condition for reading the code comprises a different second condition being met.

4. The system of claim 3, wherein the second condition is based on a displacement applied to the container by the positioning mechanism having crossed a threshold.

5 The system of claim 4, wherein the displacement is based on a rate change of the displacement decreasing below a threshold.

6. The system of any preceding claim, wherein the container is configured with a central region of the closing member to displace in the counter depth direction by 2 – 6 mm in the reading position relative an unloaded holding position when the container is subject to a three point bending in a lateral direction, which comprises:

supporting the container at left and right sides of a flange portion connecting the storage portion and the closing member, and; applying a force between left and right sides of the container in the counter depth direction at a base of the storage portion of 15 – 120 N,

wherein the central region refers to a region of the closing member that includes at least the geometric centre and is separate from a peripheral region, which includes the peripheries.

7. The system of any preceding claim, wherein the positioning mechanism is arranged to apply said loading condition as increasing in magnitude and the detection system is arranged to determine said predetermined condition during the application of said increasing in magnitude load condition.

8. The system of claim 7, wherein the electrical circuitry is configured to maintain a load condition as the same as when the predetermined condition is met and to read the code with the container subject said maintained load condition.

9. The system of any preceding claim, wherein the electrical circuitry is configured to control the positioning mechanism to reapply the variable loading condition if the predetermined condition for reading the code is not met and/or it is determined in the reading position when processing the code that it can not be read.

10. The system of any preceding claim, wherein the positioning mechanism is configured with the container in the reading position the code of the container to be in contact with a code reader of the code reading system and with the container in an unloaded holding position with the code separated from the code reader.

11. A machine for preparing a beverage and/or foodstuff or a precursor thereof, the machine comprising:

a code reading system to read a code from a container;

a processing unit for processing precursor material of the container, and;

electrical circuitry to control the processing unit based on preparation information read from the code,

wherein the code reading system includes a positioning mechanism to apply a loading condition to transfer the container from a holding position to a reading position,

wherein the code reading system includes a positioning mechanism to apply a variable loading condition to the container to selectively deform the body portion of the container,

and the code reading system includes a detection system to detect a reading position if a predetermined condition, which is based on a force and/or displacement applied to the container, for reading the code is met,

and if said condition is met, then the electrical circuitry configured to read the code to extract the preparation information in the reading position,

characterized in that the predetermined condition for reading the code comprises a first condition based on a force applied to the container by the positioning mechanism being at a target force or having crossed a target force threshold, and

wherein the force applied is based on an electrical current applied to a drive system for the positioning mechanism.

12. The machine of claim 11, wherein the predetermined condition comprises a second condition based on a displacement applied by the positioning mechanism to the container having crossed a threshold.

13. A container for use with the machine of claims 11 or 12, wherein the container comprises:

a body portion comprising a storage portion for containing a precursor material;

a closing member to close the storage portion;

a flange portion connecting the storage portion and closing member, and;

a machine-readable code storing preparation information, said code arranged on a central region of the closing member,

wherein the body portion of the container is deformable by the machine from an undeformed configuration to a deformed configuration in which the code is readable by the code reader,

wherein in the reading position the central region of the closing member is displaced in a counter depth direction by 2 – 6 mm in the reading position relative an unloaded holding position when the container is subject to a three point bending in a lateral direction, which comprises:

supporting the container at left and right sides of the flange portion and applying a force between left and right sides of the container in the counter depth direction at a base of the storage portion of 15 – 120 N, such that the central region experiences less curvature than a peripheral region of the closing member,

wherein the central region refers to a region of the closing member that includes at least the geometric centre and is separate from a peripheral region, which includes the peripheries.

14. Use of a container for the machine of claim 13.

15. A method of reading a code of a container for containing a precursor material for preparing a beverage and/or foodstuff by a system of any claim 1-10 or by a machine of claim 11 or 12 and the container of claim 13, the method comprising:

applying a variable loading condition to the container to selectively deform the body portion of the container;

determining a reading position if a predetermined condition, which is based on a force and/or displacement applied to the container, for reading the code is met, and if met;

reading the code to extract the preparation information in the reading position.