CLAIMS

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

    the container including:

    a body portion with a storage portion comprising a cavity that extends in a depth direction for containing a precursor material;

    a closing member to close the storage portion;

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

    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 code reader and a positioning mechanism to deform the body portion of the container from an undeformed configuration to a deformed configuration,

    wherein the positioning mechanism is adapted to deform the body portion in the deformed configuration to effect subsequent deformation of the closing member so that it presents a comparatively more uniform surface for reading the code,

    characterized in that the body portion of the container comprises a flange portion connecting the storage portion and closing member, and the code is arranged on a central region of the closing member,

    and in the deformed configuration, the flange portion is deformed to implement a change in curvature along a lateral direction compared to the undeformed configuration,

    and in the deformed configuration the central region of the closing member experiences less curvature than a peripheral region of the closing member compared to the undeformed configuration,

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

wherein the positioning mechanism comprises a support to support the container at a flange portion and apply pressing force to a base of the storage portion of the container via a pressing element.

2. The system of claim 1, wherein the code is arranged on a central region of the closing member, and in the deformed configuration the central region of the closing member is displaced in a counter depth direction compared to the undeformed configuration,

    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.

3. The system of claim 2, wherein in the deformed configuration the closing member is arranged to physically contact the code reader, and a reading head of the code reader is shaped to correspond in shape to a shape of the closing member in said deformed configuration.

4. The system of either of claims 2 or 3, wherein the container is configured with the central region of the closing member to displace in the counter depth direction by 2 – 6 mm in the deformed configuration relative the undeformed configuration 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.

5. The system of any preceding claim, wherein the storage portion is hermitically sealed and the positioning mechanism is arranged to reduce an internal volume of the storage portion in the deformed configuration compared to the deformed configuration.

6. The system of any preceding claim, wherein the positioning mechanism is arranged to displace the precursor material into the closing member to effect displacement of the closing member when transitioning from the undeformed to the deformed configuration.

7. The system of any preceding claim, wherein the machine includes a guide portion, which is arranged to guide the container inserted into the guide portion via gravity from an inserted

position to a holding position in which the container is in the undeformed configuration and to the processing unit.

8. The system of any preceding claim comprising a plurality of containers with a storage portion of different depth, the positioning mechanism configured to transfer said containers from the undeformed configuration to the deformed configuration and to read the code of each container.

9. A machine for preparing a beverage and/or foodstuff from a container, the machine comprising:

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

    a processing unit for processing 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 code reader and a positioning mechanism to deform a body portion of the container from an undeformed configuration to a deformed configuration,

    wherein the positioning mechanism adapted to deform the body portion in the deformed configuration to effect subsequent deformation of the closing member so that it presents a comparatively more uniform surface for reading the code,

    characterized in that the positioning mechanism comprises a support to support the container at a flange portion and apply pressing force to a base of the storage portion of the container via a pressing element.

10. A container for use with the machine of claim 9, wherein the container comprises:

    a body portion with a storage portion comprising a cavity that extends in a depth direction for containing a precursor material and with a flange portion connecting the storage portion and closing member;

    a closing member to close the storage portion, and;

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

wherein 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 deformed configuration the central region of the closing member is displaced in a counter depth direction by 2 – 6 mm 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 said 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,

and in the deformed configuration, the flange portion is deformed to implement a change in curvature along a lateral direction compared to the undeformed configuration,

and in the deformed configuration the central region of the closing member experiences less curvature than a peripheral region of the closing member compared to the undeformed configuration,

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

11. The container of claim 10, wherein the storage portion is cylindrical with a diameter of 4 cm - 7 cm and a depth of 5 mm – 25 mm and material thickness of total thickness of 0.2 mm ± 10, 20 or 30%.

12. Use of the container of claim 10 or 11 for the machine of claim 9.

13. A kit of parts comprising the machine of claim 9 and a plurality of containers of claim 10 or 11, wherein the containers have storage portions with different depths and are suitable for use with said machine.