

Claims

1. A radio-frequency identification-equipped pressure chamber for a beverage container, said pressure chamber comprising:
- 5 - a lid part;
- a base part, said lid and said base part defining a sealed inner space for accommodating and encapsulating said beverage container, said base part or lid part comprising:
- 10 ○ an inner connector part adapted to be engaged to a corresponding beverage container outlet, said inner connector part arranged on an inside of the base part or lid part; and
- an outer substantially annular gasket part arranged on the inside of the base part or lid part and surrounding the inner connector part, said outer substantially annular gasket part adapted to be engaged with a
- 15 corresponding hollow annular space of a closure of the beverage container, the outer substantially annular gasket part comprising a substantially planar annular antenna adapted to propagate radio waves to a radio-frequency identification tag arranged of an outer rim of the closure.
- 20 2. The radio-frequency identification-equipped pressure chamber according to claim 1, wherein the outer substantially annular gasket part is shaped to be introduced into the corresponding hollow annular space of the closure of the beverage container into a sealed configuration.
- 25 3. The radio-frequency identification-equipped pressure chamber according to claim 2, wherein the outer substantially annular gasket part comprises a top surface having an annular inner section and an annular outer section, wherein the annular outer section is arranged closer than the annular inner section to a top wall of the closure in the sealed configuration, and wherein the annular inner section of the top surface and the top wall
- 30 of the closure define an antenna space for the substantially planar annular antenna in the sealed configuration.
4. The radio-frequency identification-equipped pressure chamber according to claim 1 or 2, wherein the outer substantially annular gasket part comprises a keg gasket locking
- 35 flange, the keg gasket locking flange constituting a top section of the outer substantially annular gasket part and wherein the substantially planar annular antenna is integrated in said top section.

5. The radio-frequency identification-equipped pressure chamber according to any of the preceding claims⁴, wherein the outer substantially annular gasket part further comprises a keg gasket arranged under the keg gasket locking flange, preferably wherein keg gasket is made of a resilient material, or a material more resilient than that of the keg gasket locking flange.
6. The radio-frequency identification-equipped pressure chamber according to claim 5, wherein the substantially planar annular antenna is arranged between the keg gasket locking flange and the keg gasket.
7. The radio-frequency identification-equipped pressure chamber according to any of the preceding claims, wherein the substantially planar annular antenna is integrated in a substantially planar annular printed circuit board.
8. The radio-frequency identification-equipped pressure chamber according to any of the preceding claims, wherein the substantially planar annular antenna has a substantially circular inner edge and a substantially circular outer edge, wherein the substantially planar annular antenna is a spiral antenna, such as a two turn spiral antenna, a single turn antenna or a two turn antenna, the substantially planar annular antenna having an outer diameter d_{out} and an inner diameter d_{in} .
9. The radio-frequency identification-equipped pressure chamber according to claim 8, wherein the two turn antenna has a trace width w between 0.3 mm and 0.7 mm, such as 0.5 mm, and a trace space g between 0.2 mm and 0.7 mm, such as 0.5 mm, and wherein the two turns form a loop along the outer diameter d_{out} and an inner diameter d_{in} of the substantially planar annular antenna.
10. The radio-frequency identification-equipped pressure chamber according to any of the preceding claims, wherein substantially planar annular antenna is arranged with a first offset in height in relation to the radio-frequency identification tag and with a second offset in circumferential distance from the outer edge of the substantially planar annular antenna to the radio-frequency identification tag.
11. The radio-frequency identification-equipped pressure chamber according to claim 10, wherein the first offset is between 5.5 mm and 15.5 mm, preferably between 7.5 mm and 13.5 mm, such as 10.5 mm.

12. The radio-frequency identification-equipped pressure chamber according to any of claims 10-11, wherein the second offset is between 10.7 mm and 22.7 mm, preferably between 13.7 mm and 19.7 mm, such as 16.7 mm

5 13. The radio-frequency identification-equipped pressure chamber according to any of the preceding claims, wherein the substantially planar annular antenna and the radio-frequency identification tag extend in substantially orthogonal directions, and wherein the substantially planar annular antenna is arranged to generate a magnetic field component orthogonal to the radio-frequency identification tag, wherein the magnetic
10 field component has a local maximum at the radio-frequency identification tag.

14. The radio-frequency identification-equipped pressure chamber according to any of the preceding claims, wherein the radio-frequency identification is near-field communication and the radio-frequency identification tag is a near-field communication tag.

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15. A pressure system for a beverage comprising:

- a collapsible beverage container comprising a closure with a beverage outlet, the closure having an outer rim and a radio-frequency identification tag arranged on said rim;
- a pressure chamber comprising:
 - o a lid part;
 - o a base part, said lid and said base part defining a sealed inner space for accommodating and encapsulating the collapsible beverage container, said base part or lid part comprising:
 - 25 ▪ an inner connector part adapted to be engaged to the beverage outlet, said inner connector part arranged on an inside of the base part or lid part; and
 - an outer substantially annular gasket part arranged on the inside of the base part or lid part and surrounding the inner connector part, said
30 outer substantially annular gasket part adapted to be engaged with a corresponding hollow annular space of the closure of the collapsible beverage container, the outer substantially annular gasket part comprising a substantially planar annular antenna adapted to propagate radio waves to the radio-frequency identification tag.

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16. The pressure system according to claim 15, wherein the pressure chamber is the radio-frequency identification-equipped pressure chamber according to any of claims 1-14.