



## Beer Bottle Tamper Evident Caps

Beer bottle tamper evident cap is specially designed for beer-type beverages to prevent theft and anti-counterfeiting integrated packaging solutions. Haomei aluminum tamper evident beer bottle cap solves the difficulty of opening beer that has been plaguing the market for many years, and makes it easy to enjoy the smoothness and refreshment of beer without the need for opening tools. Italian manufacturing equipment, special raw materials and double sealing gasket structure. These caps not only provide a good seal functionally, but also protect consumers on a visual and technical level.

### Core requirements of Beer Bottle Tamper Evident Caps:

- High-pressure sealing: Beer contains carbon dioxide and needs to withstand  $\geq 0.8\text{MPa}$  internal pressure to prevent air leakage leading to taste deterioration.
- Fast anti-counterfeiting verification: FMCG attributes require consumers to be able to verify instantly (e.g. code scanning) without complicated operations.
- Durability: Adapt to cold chain transportation, humid environment and multiple handling.
- Ease of opening: balance between safety and convenience, such as easy-pull ring or twist-open design.

### Structure of Beer Bottle Tamper Evident Caps:

- Aluminum cap

Material: 5052 or 3104 aluminum alloy (high corrosion resistance, compressive strength  $>150\text{MPa}$ ).

Process:

Epoxy resin coated on the inner wall after stamping and molding to prevent acidic corrosion of beer.

Laser engraving of brand logo or micro-miniature anti-counterfeiting code on the surface to avoid printing off.

- Plastic sealing components

Material: food-grade PE or EPDM rubber gasket, thickness  $\geq 1.2\text{mm}$ , modulus of elasticity to match the long-term deformation under pressure.

### Applications of Beer Bottle Tamper Evident Caps:

- Beer manufacturers: Various beer brands use these caps to protect their products against counterfeits and inferior products.
- Beverage industry: In addition to beer, other beverage products may also use similar anti-counterfeit caps.