



## Liquor Bottle Caps

Liquor bottle caps refers to the caps used to seal spirits (such as whisky, vodka, rum, white wine, etc.), which usually combine the functions of sealing, anti-counterfeiting and brand display. The material is mainly aluminum (including screw cap, crown cap, etc.), and some high-end spirits may be combined with cork or ceramic caps.

Liquor bottle caps structure consist of an aluminum housing and an internal sealing layer such as a food-grade plastic or silicone gasket. Aluminum is lightweight, corrosion-resistant and easy to shape, allowing for precise threading to ensure a tight seal. Some high-end liquor caps also incorporate tamper-evident rings or reusable silicone membranes (e.g. screw caps adapted to the Coravin system, which can be stored for up to 3 months after opening).

### Liquor Bottle Caps Sizes:

| Size      | Data                              | Description   |
|-----------|-----------------------------------|---|
| Diameter  | 24mm                              | Suitable for small neck design, mostly in traditional spirits bottles (e.g some whisky, vodka)                              |
|           | 24mm                              | Widely used in modern spirits bottles, adapted to standard bottle tops, providing better sealing and anti-theft properties. |
| Height    | Typically 18-60mm                 | Taller than wine bottle caps for stronger seals   |
| Thickness | Aluminum thickness<br>0.20-0.26mm | Some caps with high sealing requirements may be thicker, taking into account both strength and processability.              |

### Design of Liquor Bottle Caps:

#### - Surface treatment

Enhanced anti-counterfeiting and aesthetics through embossing, hot stamping, silk-screening and other techniques .

#### - Anti-theft design

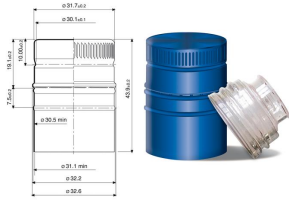
Twist-off/open structure: the connecting point line breaks after the cap is opened, displaying the anti-theft symbol and preventing secondary encapsulation.

Destructive inner liner: the inner cushion is made of special dripping material, which cannot be recovered after opening to ensure the sealing.

#### - Sealing structure

Radial fit tolerance: the gap between the inner diameter of the aluminum cap and the outer diameter of the bottle mouth is controlled at 0.3-0.4mm to avoid sealing problems caused by too loose or too tight.

**Axial Height Tolerance:** Ensure that the cap fits tightly in the height direction of the bottle mouth to prevent leakage.



### Finish of Liquor Bottle Caps:

| Parameter                                   | Specification                             |
|---|---|
| Sizing                                      | Roller Coating Vinyl base size            |
| Inside gold                                 | Roller Coating Full lacquer gold          |
| Outside printed as per customer requirement | Flaxo print                               |
| Varnish                                     | Roller Coating PP cap Transparent Varnish |

|            |   |
|------------|---|
| Decoration |   |
| Top        | lithographic printing / embossing / UV printing / hot foil / silk screen  |
| Side       | four colors offset printing / embossing / hot foil / silk screen printing |

### Typical Application of Liquor Bottle Caps:

| Liquor Category | Typical Application Scenarios                                  | Cap Features  |
|-----------------|--|---|
| Whisky          | Single malt whisky, blended whisky, cask strength whisky, etc. | Mostly with 28mm diameter cap, matte or metallic surface, with hot stamping/laser engraving, reflecting high-end positioning.       |
| Vodka           | Neutral liquor, flavored vodkas (e.g. lemon, vanilla)          | Sealability is important, commonly 24mm or 28mm caps, some brands use a transparent window to show the purity of the liquor.        |
| Rum             | White Rum, Gold Rum, Black Rum                                 | Tropical style designs (e.g. embossed palm leaf pattern), aluminum cap liners need to withstand high humidity environments.         |
| Tequila         | Silver Label Tequila, Aged Tequila (Añejo)                     | Commonly used with 28mm caps, some Mexican brands have colored aluminum caps with traditional ornamentation.                        |
| Brandy/Cognac   | VSOP, XO grade Cognac  | High-end market prefers gold/rose gold plated aluminum caps with cork assisted sealing (double seal construction).                  |
| Liqueurs        | Sweet liquors (e.g. Baileys, Cointreau)                        | Small diameter bottles (24mm cap mostly), the liner needs to be resistant to sugar corrosion to prevent sticking.                   |
| Other Spirits   | Gin, Vermouth, Chinese White Wine (some high-end series)       | The white wine sector is gradually replacing the traditional plastic cap, emphasizing anti-counterfeiting (e.g. one cap, one code). |



## Core Advantages of Liquor Bottle Caps:

### - Sealing performance

Aluminum screw cap: precision threaded design isolates oxygen and prevents evaporation or oxidation of liquor (e.g. whisky for long term storage).

Lining material: Silicone or PVC gasket to enhance sealing, suitable for high alcohol concentration liquids ( white wine above 60% vol).

### - Anti-counterfeiting and security

Anti-theft ring design: cap body breaks after opening the bottle to prevent secondary filling.

Laser engraving/QR code: integrated brand logo or traceability information to combat counterfeit wine (e.g. Moutai anti-counterfeiting cap).

### - Brand display and customization

Surface technology: can be plated, painted, embossed or printed with logos (e.g. personalized caps for Absolut Vodka).

Shaped design: customized special shapes (e.g. hexagonal, embossed pattern) to enhance the high-end feeling.

### - Environmental protection and cost

Aluminum is recyclable, more resistant to moisture and insects than cork, and suitable for mass production.

The overall cost is lower than the combination of cork + tin foil closure (especially for mid-range spirits).

### - Bottle opening experience

Screw caps are tool-less and ready to drink, suitable for ready-to-drink consumption scenarios (e.g. pre-mixed cocktails).

Some high-end caps are designed to be re-sealable (e.g. screw caps with silicone plugs), which prolongs the preservation time after opening.

## Packaging of Aluminum Liquor Caps:

| Parameter          | Specification  |
|--------------------|--|
| Quantity           | According to the caps sizes  |
| Packing box        | 5 ply or 7 ply Body Corrugated Boxes according to the requirement of customer. |
| Packing – Inner    | Packed in sealed Polyethylene bags   |
| Packing – External | Gum tape and strapped with PVC straps  |
| Optional           | Palletize as per Customer requirement.   |