



## QR Code Tamper Evident Caps

QR code tamper evident cap is a smart packaging solution that combines physical anti-counterfeiting and digital technology to achieve multiple security through the fusion of aluminum bottle cap and QR code.

By combining modern technology with traditional packaging, QR code aluminum bottle caps not only enhance the anti-counterfeiting ability of the product, but also strengthen the consumer's sense of trust and experience of use.

### Structural design of QR Code Tamper Evident Caps:

#### 1. Aluminum housing

- Lightweight aluminum is stamped and formed, and the surface can be plated, painted or laser engraved to enhance the aesthetics.
- Built-in sealing gasket (e.g. PE, PVC) ensures air tightness of bottle mouth.

#### 2. 2D code area

- Printing process: Adopt wear-resistant and corrosion-resistant UV printing or laser coding technology to ensure that the QR code is long-lasting and clear.
- Encryption design: the QR code is associated with a unique serial number, partially combined with a dynamic code (updated every time the code is scanned) to prevent copying.

#### 3. Anti-counterfeiting auxiliary structure

- Physical anti-counterfeiting ring: Some designs are combined with twist-off anti-counterfeiting ring for double verification (physical destruction + digital verification).
- Temperature change/light change ink: special ink is superimposed on the QR code area to show hidden information under touch or light.

### Application Scenarios of QR Coded Tamper Evident Caps:

#### 1. High-end Liquor

Famous wines use "QR code + twist off ring" aluminum tamper evident caps, which allow consumers to scan the code to check the authenticity and participate in anti-counterfeiting lucky draws.

#### 2. Pharmaceuticals/healthcare products

Under the mandatory requirement of drug regulatory code, the QR code on aluminum cover realizes the whole chain traceability



from production to circulation to consumption.

### 3. Cosmetics

International brands (e.g. Estee Lauder) verify the authenticity of their products by scanning the code, and push the analysis of ingredients and use tutorials.

#### **Core Advantages of QR Code Tamper Evident Caps:**

##### 1. Enhanced anti-counterfeiting:

The uniqueness of the QR code gives each product a unique identity, prevents counterfeiting and forgery, and enhances product security.

##### 2. Consumer Trust:

Consumers can scan the QR code to obtain the product's production information, ingredients, instructions for use, etc., enhancing their trust in the brand.

##### 3. Convenience:

The process of scanning the QR code is simple and quick, and consumers can verify it anytime and anywhere, enhancing the user experience.

##### 4. Information-rich:

Through the QR code, companies can provide richer information, such as product stories, usage suggestions, promotional activities, etc., enhancing interaction with consumers.

##### 5. Environmentally friendly:

Aluminum bottle caps are recyclable, which is in line with the concept of sustainable development and enhances brand image.