# **ARA-Authentic – smart protection**



AN EFFICIENT METHOD FOR MARKING AND AUTHENTICATING PRODUCTS AND THEIR PACKAGING: ARA-FLEXIPROOF®

### What is ARA-flexiproof®?

ARA-flexiproof® is a combination of two different anti-counterfeit features, one of which is applied directly to the product surface using a LIFT process, and the other is applied as a self-destructing label to the packaging.

Both are correlated and can be independently authenticated using a smartphone.

## Example: Marking of perfume bottles (A) and their packaging (B)

### A.1 Laser-induced PVD coating "ARA-checkmyheat®" on a perfume bottle:

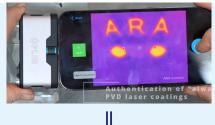
Photo of the ARAcheckmyheat® label plus DM code on the perfume bottle



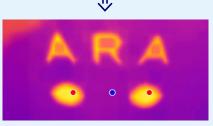


Infrared image of the ARAcheckmyheat® label

#### A.2 Authenticity check with the own smartphone plus IR adapter



The marking on the perfume bottle appears yellow on the smartphone display.



The measuring position has been reached: the warm temperatures are measured at the red points and the colder temperature at the blue point.



The temperature difference between the labeled area and the unlabeled area is more than 5°. The sample is an original.

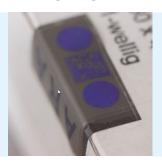
# **ARA-Authentic – smart protection**

AN EFFICIENT METHOD FOR MARKING AND AUTHENTICATING PRODUCTS AND THEIR PACKAGING: ARA-FLEXIPROOF®

## Example: Marking of perfume bottles (A) and their packaging (B)

### B.1 Forgery-proof labels with a lighting-dependent color change on the product packaging

Photo of the color change label on the packaging color change on the product packaging





Color changing label when illuminated

#### B.2 Authenticity check with the own smartphone





The app developed by Ara-Authentic measures the color values b\* at a specific location, once without and once with a flash. Only if the difference between the two color values is greater than 80 is the sample considered an original.

### What are the advantages of this method?

- The features themselves are completely new, unique, and cannot be reengineered.
- The additive laser markings can be applied to virtually any product, do not affect the product surface, and cannot be removed non-destructively.
- Both features are customizable and can also contain product information, meaning the coding itself is counterfeit-proof.
- The laser settings are parameterized on a product-specific basis.
- Cost-effective production, uncomplicated integration into production lines.
- Reliable and fast authentication with customized apps for manufacturers, intermediaries, suppliers, end users, customs, and other authorities.

Ara-Authentic GmbH | Enschedestraße 14 | 48529 Nordhorn | Germany | info@ara-authentic.de