

## Specification: ARA-LT<sup>®</sup> „Gold“

### Laser-transferable golden PVD-coatings on PET-films, Article no.: 2.01.101.00

#### **Description**

ARA-LT<sup>®</sup> „Gold“ consists of a pure gold coating on a PET film. The PET film is transparent for the laser wave length used (1064 nm) and acts as a carrier for the gold coating to be transferred.

Depending on the purpose of use as well as the product surface, the gold layer may be embedded in a release layer and a thin adhesive layer.

The whole coating is made by using the vacuum based coating technology Physical Vapor Deposition (“PVD”).

The coated PET-film is rolled up on a roll core in such a way, that the PVD-coating is located on the inner side.

#### **Purpose of use**

With ARA-LT<sup>®</sup> „Gold“ different products can be equipped to get decorative or functional gold markings with excellent mechanical and chemical properties.

To do so, a standard marking laser is necessary only.

A description about how it works is given in the operation manual.

When the selective transfer of the gold coating was proceeded correctly, for example on glass, then the remaining gold marking is opaque, abrasion resistant, shows an excellent adhesion and the golden color appears on the upper side as well as on the backside.



*Photo: Laser-induced PVD-marking “Gold 99,99 %”, applied on the upper side (left) as well as on the backside (right)*

Examples for suitable product materials to be equipped with ARA-LT<sup>®</sup> „Gold“ are glass, steel, ceramics and some polymers.

## Technical data

### PET film

The corresponding data sheet is given upon request. The standard thickness of the PET carrier is 72 µm and its width is 30 mm. Depending on request, ARA-LT – coated PET-films with thicknesses between 12 µm and 100 µm and a width between 10 mm and around 600 mm can be delivered.

### PVD-coating

The transferable gold layer consists of pure gold (99,99 %) with a thickness of 400 nm ("Gold") and 600 nm ("Gold+"), respectively.

Depending on a given purpose, very thin metal films as release and / or adhesive layer can be added.

After the transfer is proceed, these layers are not existing anymore.

### Properties of the ARA-LT® - "Gold" - coated PET-film

- It's mechanical, chemical und thermal resistance is limited by the PET carrier itself (Please see the corresponding data sheet).
- Storage conditions: 8-25 °C; RH <60 %; one year

### Properties of the transferred gold layer

The mechanical, chemical and thermal properties as written below are valid only in case of a correct transfer on a suitable product surface.

- Optical appearance: golden
- Adhesion resistance: excellent
- Abrasion resistance: good
- Chemical stability: not affected by standard cleaning agents, acids and bases
- Thermal stability: up to 600 °C
- Corrosion resistant
- The product surface is not affected by the PVD-marking process
- Conflict free gold reduction (Certificate on request)
- The manufacturing is environmentally friendly

## Contact

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