

Specification: ARA-LT[®] „Silver“

Laser-transferable silvery PVD-coatings on PET-films Article no.: 2.02.102.00

Description

ARA-LT[®] „Silver“ consists of Silver mainly, on a PET film. The PET film itself is transparent for the laser wave length used (1064 nm) and acts as a carrier for the silver coating to be transferred.

Depending on the purpose of use and on the product surface, the silver coating may be embedded between 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[®] „Silver“ different products can be equipped to get decorative and robust markings with very good mechanical and chemical properties. The color is depending on the product surface or can be adjusted as requested between white and bright grey.

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 silver coating was proceeded correctly, for example on ceramic or glass, then the remaining silver marking is opaque, abrasion resistant and shows an excellent adhesion.



Photo: Laser-induced PVD-marking on glass, showing a silvery text

Examples for suitable product materials to be equipped with ARA-LT[®] „Silver“ are glass, 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® “Silver”- 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 silvery coating consists mainly of silver with a thickness between 300 nm and 400 nm.

Properties of the ARA-LT® - “Silver” - coated PET-film

- It's mechanical and 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 silver 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: silvery
- Strong contrast, sharp edges – even at very small graphics and structures
- Adhesion and abrasion resistance: very good
- Chemical stability: not affected by standard cleaning agents
- Thermal stability: up to 400 °C
- Corrosion resistant
- The product surface is not affected by the PVD-marking process
- The manufacturing is environmentally friendly

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