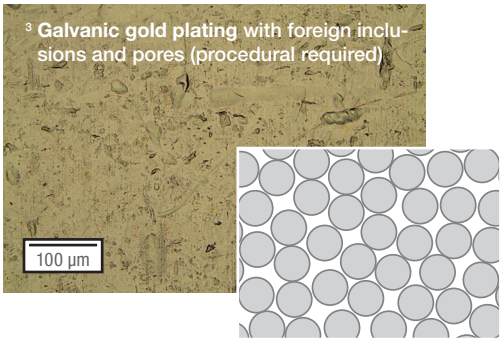
A leap in quality for Audio connectors

Connectors and contacts are generally made from copper or brass. In order to ensure reliable transmission of signals, very high requirements apply with regard to the inherent purity. Any corrosion should be avoided at all costs.

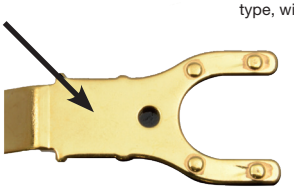
In order to protect against corrosion, contacts are coated with precious metal, generally gold. Around the world, this is done by all manufacturers of connectors almost exclusively using the commonly known electroplating technology.

In order to ensure purity, which also contributes to long-term corrosion resistance, WBT is the first manufacturer in the world to replace electroplating technology with the significantly more precise PVD[1] technology as the standard gold-plating method for connectors.



[3] **Galvanic gold plating** with foreign inclusions and pores (procedural required)

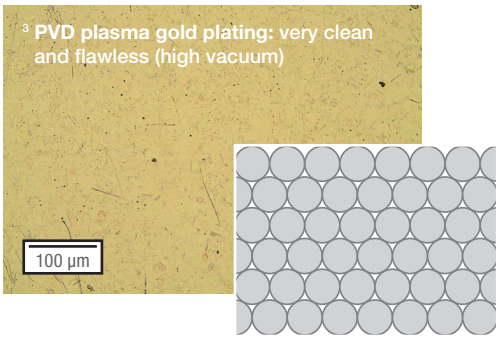
Atomic structure: Amorphous type, with less packing density



WBT-PlasmaProtect™

The PVD plasma process enables a physical fine gold plating, without chemicals. The result is a permanently homogeneous material bond which allows for broadband signal transmission which can be precisely reproduced over the long term in connectors.

Using the **WBT-PVD-Plasma-3D-technology,** pure gold is atomically bonded[2] to the surface of the contacts and is thus inextricably attached. The result is a closed, chemically dense and **hard surface with a defined, crystalline structure.** Moreover, this gold layer is, in contrast to the amorphous, undefined, galvanic gold plating, free from defects and non-porous. These three factors raise the contact quality to a higher level. They therefore achieve improved signal transmission and guarantee hitherto unattained long-term stability.



[3] **PVD plasma gold plating:** very clean and flawless (high vacuum)

Atomic structure: Crystalline type with high packing density

The key points

Quality:

1. *The surface has a defined crystalline structure.*
   ➔ This allows for a precise broadband signal flow!
2. *It is pure, tightly sealed, and non-porous.*
   ➔ That means good corrosion-resistance!
3. *It is thin but flawless, hard, and at the same time flexible.*
   ➔ That makes it scratch and abrasion-resistant!

…and it can be reliably precisely reproduced!

Environmentally friendly – economical:

Gold is used in thin film nanotechnology!
The energy consumption is >25% lower compared to electroplating!
The PVD plasma process is environmentally neutral!
(no toxic electroplating baths)

Economy:

Existing jobs are secured through innovative production processes and products. This creates good and sustainable growth opportunities in their own country compared to global competition.

[1] PVD = **P**hysical **V**apor **D**eposition [2] Van-der-Waals-Forces [3] Fig. Prof. C. Burkhardt, HS Pforzheim

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