# Shelf life of electroplated products

# 1. Requirements:

## 1.1. original packaging unopened.

## 1.2. Storage conditions:

- Closed room
- humidity < 50% rH</li>
- temperature 15-25°C (59-77°F)

### 2. Warranties for diverse surfaces:

## 2.1 copper (base material or plated) /copper alloys:

no warranty (these materials tend to oxidize)

#### 2.2 Silver:

un-passivated: no warranty regarding discoloration/ sulphidation
passivated: warranty 6 months (packaging with silver-protection recommended)

#### 2.3 Gold:

>0,1 µm
<0,1 µm</li>
12 month (only with a diffusion barrier underneath, such as nickel)
<0,1 µm</li>
6 month (only with a diffusion barrier underneath, such as nickel)

### 2.4 Bonding surfaces:

• gold, nano-palladium + nano-gold: 12 months (after that timespan a new bonding test should be done before further processing).

## 2.5 Tin (tin-lead, other tin alloys) in regard to solder ability:

< 5 µm</li>
> 5 µm
12 months (diffusion barrier is recommended, such as nickel)
for thicknesses >5µm we recommend to do a "solder ability-test after aging" according to DIN IEC 60068-2-20.

Sn 100% whisker-growth can not be ruled out

Änderungen dieses Dokuments bewirken Änderung der AGB's. Bitte rechtzeitige Information an Assistenz GF



