



Leitfaden Aktivator

Activator – Beginner Guide

Brush, Tampon & Bath Electroplating

This guide is beginner-friendly, practical, and aligned with internationally established sources and training standards. It applies equally to brush/tampon plating and bath activation. The activator is a critical preparation step before electroplating. It removes oxide layers from nickel-containing metals and creates a chemically active surface for optimal adhesion.

1. Purpose of an Activator

Activation removes invisible oxide and passive layers that prevent proper adhesion of subsequent metal coatings.

Without activation, plating may:

- peel off
- show poor adhesion
- develop stains or underplating corrosion

➡ The surface appearance does not change visibly, but becomes chemically active.

2. Suitable Materials

The activator works on nickel-containing metals and alloys, including:

- Nickel
- Stainless steel
- Dechromed parts
- Brass
- Many other alloys containing nickel

3. Safety Instructions

- Wear protective gloves
- Wear safety goggles
- Avoid skin and eye contact
- Rinse splashes immediately with water

4. Electrical Connection (Normal Polarity)

⚠ No polarity reversal is used for activation.

- Positive (+): handpiece with electrode
- Negative (-): workpiece with crocodile clip

Recommended electrodes:

- Stainless steel

- Graphite

5. Operating Parameters

- Voltage: start at approx. 2.7 V
- Temperature: room temperature
- Exposure time: approx. 30 seconds to max. 1 minute

6. Brush / Tampon Activation

1. Connect polarity correctly
2. Moisten electrode lightly with activator
3. Move gently in circular motions across the surface
4. Treat the entire area within 30–60 seconds

⚠ If black spots or burn marks appear:

- stop immediately
- reduce voltage
- polish affected areas

7. Bath Activation

1. Place workpiece in activator bath
2. Connect electrode (positive)
3. Connect workpiece (negative)
4. Slowly adjust voltage to ~2.7 V
5. Activate for 30–60 seconds

8. Notes on Power Supply Behavior

- Some professional units may show voltage fluctuations during activation
- Cooling fan speed may decrease

➡ In this case:

- pause briefly
- continue in short intervals

ℹ With newer activator formulations, no current (ampere) reading may appear – this is normal.

9. Common Beginner Issues

Black stains or burning: voltage too high or surface does not require activation

Poor adhesion afterward: insufficient activation or inadequate degreasing

10. Rinsing & Immediate Plating

- Rinse thoroughly with distilled water
- Do not allow surface to dry
- Proceed directly with plating (nickel, gold, silver, palladium, etc.)

Key takeaway:

Proper activation is the foundation of good adhesion – short exposure, low voltage, and immediate plating are essential.