umicore
Metal Deposition Solutions

PLATUNA® PT Platinum Electrolyte

Pure platinum electrolyte without yellow tint

The strongly acidic PLATUNA® PT platinum electrolyte is used to

deposit smooth, crack-free platinum coatings up to a layer thickness of 5 µm. The deposited layers are characterized by a brilliant luster and, in contrast to conventional platinum coatings, do not exhibit a yellow tint.

Furthermore, the electrolyte has a low sulfuric acid content and is therefore less aggressive to the coating substrate. The deposition rate is independent of the current density, which leads to an optimum layer thickness distribution. No precipitation occurs and the platinum concentrate does not have to be stored in the refrigerator.

Electrolyte characteristics

Electrolyte type	Strongly acidic
Metal content	2 (1 - 6) g/l
pH value	< 1
Operating temperature	60 (55 - 65) °C
Current density range	5 (0.5 - 10) A/dm²
Plating speed	approx. 0.13 µm/min at 5 A/dm²
Deposition rate	approx. 5.6 mg/Amin at 5 A/dm²

Coating characteristics

Coating	Platinum

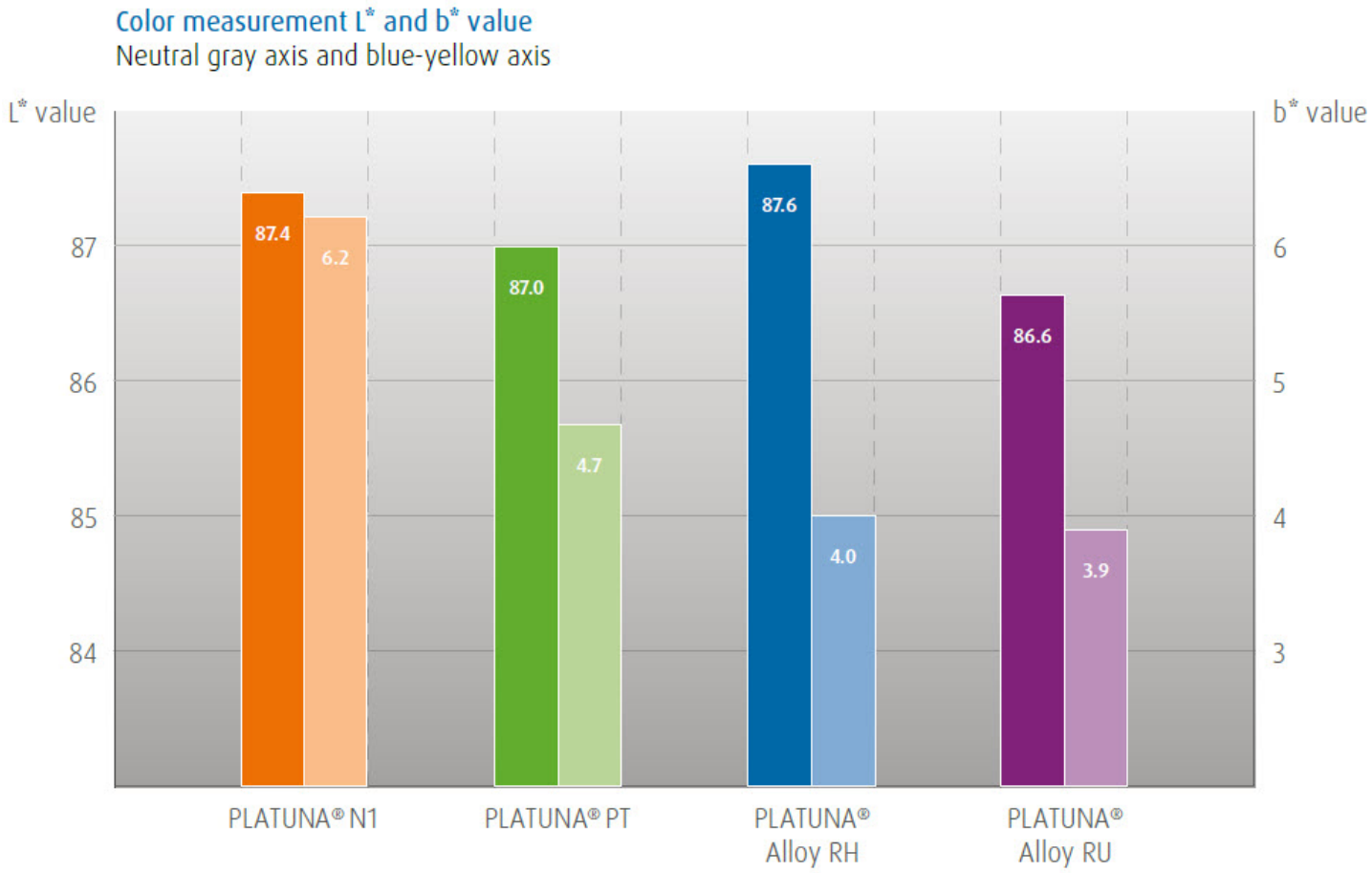
Purity	99.9 wt.% Pt
Colour of deposit	White
Brightness	Bright, brilliant
Hardness	not measurable, approx. 350 HV
Max. coating thickness	approx. 0.5 µm bei 2 g/l Pt content, up to 5 µm at 6 g/l Pt content
Density of the coating	approx. 21,4 g/cm³

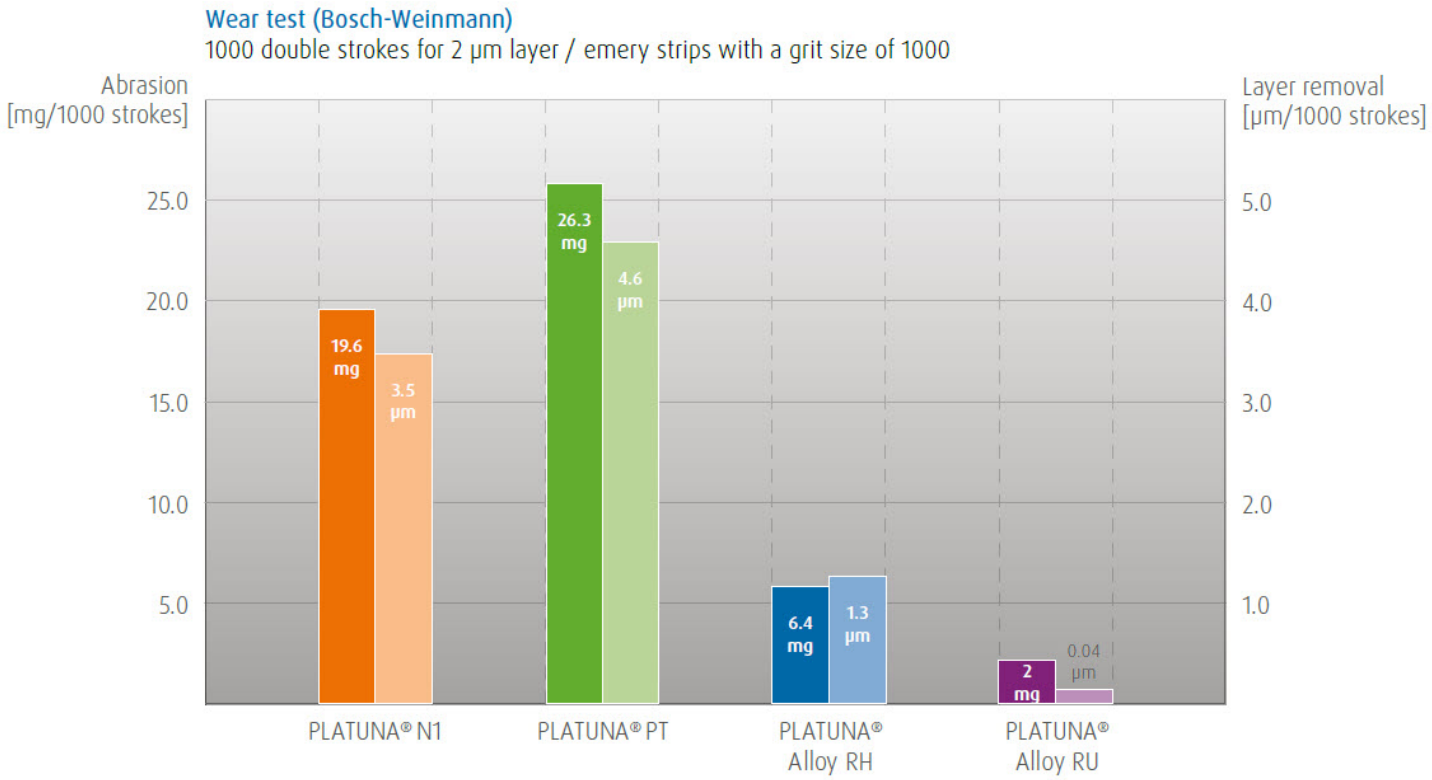
Advantages

- Excellent brilliance without yellow tint
- Up to 5 µm layer thickness
- High abrasion resistance
- Current density independent
- Easy handling - no cold storage and no precipitation

Applications

- Jewelry
- Watches
- Writing implements
- Spectacles frames
- Bathroom fittings





Your contact person

Markus Legeler

Manager Sales International

T: +49 7171 607 204

F: +49 7171 607 316

markus.legeler@eu.umicore.com