



Dark ruthenium coatings without strike gold plating

The black ruthenium electrolyte is suitable for decorative applications, above all in the clothing industry. It can be used for rack and barrel plating operations. Due to its high abrasion resistance, subsequent lacquering is not necessary, reducing the number of further process steps. Its positive features make themselves apparent even at a low ruthenium concentration of just 2 g/l.

Electrolyte characteristics

Electrolyte type	Neutral
Metal content	2 (1.8 - 2.2) g/l Ru
pH value	7.0 (6.5 - 9.0) at 65 °C
Operating temperature	65 (60 - 70) °C
Current density range	1.0 (0.5 - 3.0) A/dm²
Plating speed	Approx. 0.02 µm/min at 1.0 A/dm²
Anode material	Pt/Ti or MMO (type PLATINODE® 167 or 177)

Coating characteristics

Coating Black ruthenium

Purity	99 wt. % Ru
Colour of deposit	Grey to anthracite (black)
Brightness	Bright

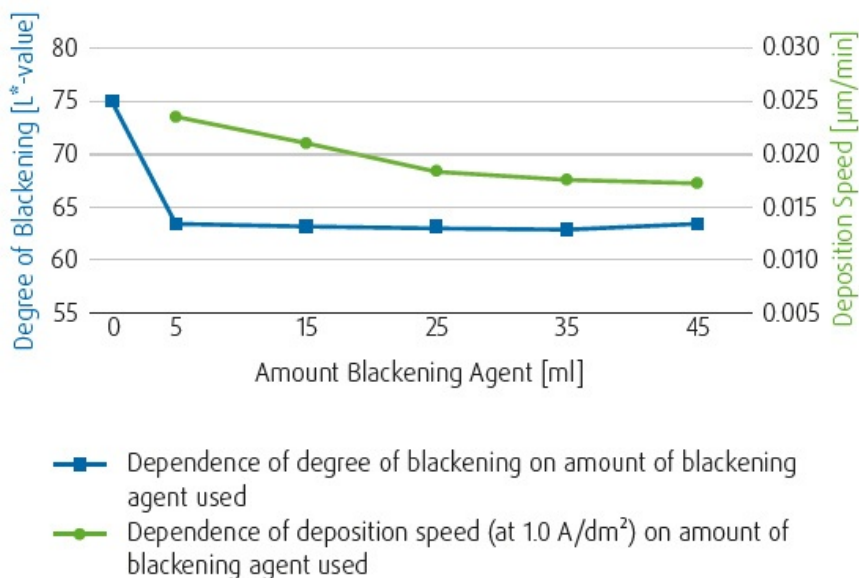
Advantages

- Neutral black ruthenium electrolyte
- Simple bath maintenance
- Dark grey to anthracite coatings
- For decorative applications
- High abrasion resistance
- No lacquer finish is needed
- Good colour constancy
- Direct deposition on bronze or nickel possible
- No intermediate layers of expensive palladium or gold necessary
- Enormous precious metal cost savings
- Suitable for rack and barrel

Applications

- Accessories in the clothing industry
- Baby clothing
- Car interiors

Influence of Blackening Agent (RUTHUNA® 490 Black)



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