Rh Ru

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RHODUNA® ALLOY BLACK 1

RHODIUM-RUTHENIUM-ELECTROLYTE

Bring the day the elegance of night

Attractive, appealing and elegant. This ia as true for the night as well as for precious metals. Surface finishing with RHODUNA®-Alloy Black 1 allows you to transfer this elegance to your products - also at daytime.

The electrolyte deposits a dark precious metal alloy of rhodium and ruthenium with a noble anthracite hue - without color shift. The coatings produced are extremely resistant to abrasion and offer a price advantage of almost 50 percent (August 2019).

RHODUNA®-Alloy Black 1 finally makes your customers' desire for dark precious metal surfaces a reality.

Advantages

- Very dark anthracite with high color constancy
- Adjustable degree of blackness
- Gloss-preserving
- Uniform layer thickness
- Up to 0.5 µm crack-free
- Extremely abrasion resistant
- Large applicable current range
- Simple bath management
- Significantly cheaper than pure rhodium layers
- Base for deep black layers (RHODUNA® 471 Black)

Applications

- Accessories
- Jewelry
- Watches
- Eyeglasses
- Fittings
- Automobile interior
- Writing implements
- Contacts

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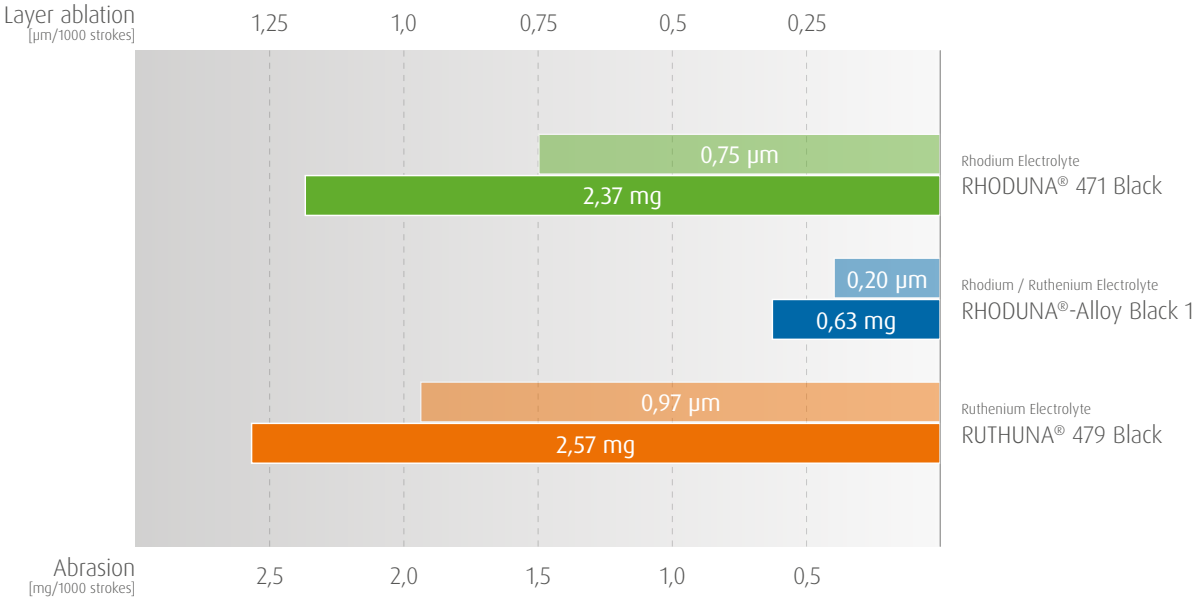
TECHNICAL SPECIFICATIONS

Electrolyte characteristics	
Electrolyte type	acidic
Metal content	1.0 (0.8 - 1.2) g/l Rh 1.0 (0.8 - 1.2) g/l Ru
Operating temperature	45 (40 - 50) °C
Current density range	2.0 (0.5 - 5.0) A/dm²
Plating speed	Approx. 0.04 µm/min at 2.0 A/dm²

Coating characteristics	
Coating	Rhodium-Ruthenium
Alloy composition	50 % Rh 50 % Ru
Colour of deposit	Anthracite
Max. coating thickness	0.5 µm
Coating density	Approx. 12.4 g/cm³
Hardness of deposit HV 0.015 (Vickers) approx. values	600 - 900 HV

Abrasion Test (Bosch-Weinmann)



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L*a*b* color values (as a function of current)