umicore
Metal Deposition Solutions

Umicore Antitarnish

Reliable protection for decorative precious metal surfaces

Umicore Antitarnish is a protective process for decorative precious metals. This absolutely transparent layer in the nanometer range protects the base material from oxidation, discoloration and mechanical stress. The colour and gloss are not affected. The coating is chemically resistant, dirt and water repellent and has a long life.

In addition, the product quality is increased by appropriate properties. Umicore Antitarnish, for example, not only creates a good feel but is also dirt and water repellent. It also protects against scratches and abrasion and allows subsequent grinding or polishing. The silver base material itself remains recyclable and the coating does not reduce its value.

All our protective coatings do not contain any environmentally harmful components such as solvents, CFCs, CHCs, hydrocarbons or chromium compounds. They are therefore biologically harmless.

Overview Umicore Protective Layers

All Umicore protective layers (technical and decorative) can be found on the overview page: Protective Layers for Precious Metal Surfaces

Advantages

- Wide range of products enables targeted protection for a variety of applications
- Protects against corrosion, tarnishing, discoloration, dirt, abrasion and scratches
- Biologically harmless, skin-friendly and hypoallergenic
- Dirt- and water-repellent (reduces the fingerprint sensitivity of the surfaces)
- Electrochemical and electroless processes possible
- Optimized for rack and barrel applications

- Do not contain any environmentally harmful components such as solvents, CFCs, CHCs, hydrocarbons or chromium compounds.
- No influence on colour or gloss of the final layer

Applications

- Rings / Earrings
- Chains
- Bracelets / ribbons
- Eyeglasses
- Piercings
- Cufflinks
- Accessories

		Antitarnish			
		613	617	618	618 PLUS
Precious metal base	Ag Plated	●	●	●	●
	Ag Sterling	◉	●	●	◉
	Ag Antique	◉	●	◉	◉
	Au	◉	◉	●	●
	Other Pd Pt Rh Ru	◉	◉	◉	●
Protective effect	TAA[1]	■■■■	■■□□	■■□□	■■□□
	K2S[2]	□□□□	■■■□	■■■□	■■■■
	(NH4)2S[3]	□□□□	■■□□	■■□□	■■■□
	Na2S[4]	□□□□	■■□□	■■□□	■■■□
	Reality[5]	■■□□	■■□□	■■□□	■■■■
Usage	Rack	●	●	●	●
	Chain galvanization	◉	◉	◉	●
	Barrel	◉	◉	◉	◉
Information	Hints and special characteristics	Subsequent bonding possible (e.g. stones)	Especially for sterling silver or antique coloured silver	Especially for silver-plated or gold-plated surfaces	Especially for silver-plated or gold-plated surfaces
		Passes TAA test			Electrochemical

Legend precious metal base and usage
● Optimized
◉ Useable
○ Not useable

Legend protective effect and layer characteristics
■■■■ Excellent
■■■□ Very good
■■□□ Medium
■□□□ Weak
□□□□ None

1) Thioacetamid test
2) Potassium sulphide test
3) Ammonium sulphide test
4) Sodium sulphide test
5) Protective effect in reality
6) Neutral salt spray test
7) Indication of stability
8) Indication of reduction

Silver Test Series / K_2S-Test, 2%

Antitarnish 618 PLUS, 25°C applied to silver

after 30 seconds
Silver without Antitarnish

after 120 seconds
Silver with Antitarnish

Silver Test Series / K_2S-Test, 5%

Antitarnish 618 PLUS, 25°C applied to silver

after 30 seconds
Silver without Antitarnish

after 120 seconds
Silver with Antitarnish

Silver Test Series / (NH4)2S-Test, 2%

Antitarnish 618 PLUS, 25°C applied to silver

after 30 seconds
Silver without Antitarnish

after 120 seconds
Silver with Antitarnish

Your contact person

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