

## **USER INSTRUCTIONS**

# **PROTECOR 201**

ANTITARNISH SOLUTION NANO-COMPOSITE FOR SILVER AND LOW CARATAGE GOLD ALLOYS

Colour : —	Use :	Bath	Colour coordinates: L:—	a:—	b:—
Lolour : —	use :	Batn	Colour coordinates : L:—	a:—	p:—

### **Product description**

PROTECOR 201 is a chemical solution concentrated that makes silver items highly resistant to darkening.

### **Operating conditions**

Parameter	Average suggested value	
Deposition time	400 seconds	
Temperature	55 ℃	
Voltage (If required)	5.0 V	
Current density	<del>-</del>	
Cathodic efficiency	<del>-</del>	
Deposition speed	<del>-</del>	
Anodes	Titanium/Iridium	
Agitation	Moderate	

## Maintenance of plating bath

For small plating solution volumes (up to 10 litres) we suggest to use the bath without replenisher. For higher volumes we suggest to use the related replenisher composing the bath:

• **PROTECOR 200S**: add after analysis.

• PROTECOR 201: add 2 ml every week.

## Solution replacement

The bath should be changed after strong contamination or if becoming dark. Normally after 6 / 8 weeks.

## **Safety Information**

Please refer to the safety data sheets for any information regarding safety and disposal (MSDS).



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### Example of preparation of 100 litres of product

- 1. Pour approximately 80 litres of demineralised water into the tank.
- 2. Heat up the water to 60 °C and switch on the filter pump.
- 3. Add under strong stirring 1 litres of PROTECOR 201. Should be necessary to heat up the protector 201 bottle at 50°C in order to liquefy the concentrated solution before the use.
- 4. Switch on the suction.
- 5. Bring to the volume of 100 litres with demineralised water.
- 6. **In case of electrolytic use** ,dissolve 3.5 g/l of PROTECOR 200S into a separate can with hot water and put into the working tank
- 7. he coating bath is ready to use when a nearly clear solution is achieved (» 15min). The concentrate may not be filled coldly into the water bath.

### Treatment of the pieces

The operating cycle for pieces that have just been silver-plated is very simple; after the silver-plating bath, proceed as follows:

- 1. Recovery/Rinsing
- 2. Washing
- 3. Acid neutralisation (Use CLEANOR 303 neutralizing solution)
- 4. Washing
- 5. Immersion in PROTECOR 201 for 5-10 minutes (in case of electrolytic use, switch on the rectifier)
- 6. Washing in demineralized water
- 7. Washing in hot water (70°C)
- 8. Drying with hot air (avoid drying systems that could remove the passivation)
- 9. Removal the PROTECOR 201 treatment from the racks hooks by anodic alkaline degreasing.

#### **Products related**

Cod.Articles	Description	Colour	Packaging
PS010101	PROTECOR 201 concentrated nano-composite antitarnish solution	_	1 L
PS010105	PROTECOR 201 concentrated nano-composite antitarnish solution	_	100 ml
PS010110	PROTECOR 200S conducting salts	_	100 g
PS010201	PROTECOR 200BS antitarnish ready to use	_	1-25 L