

Looking for a Unique Black Finish?

**VIROBLACK**



Zinex ViroBlack Bath is a bright electroplating process that replaces many other baths including black chrome. ViroBlack can be deposited with either rack or barrel equipment and is very tolerant to contamination.

#### FEATURES

- Adjustable color from a gray to a rich gun-metal black
- Contains no chrome or nickel
- Only two additives
- Produces fine grained deposits
- Excellent throwing power
- Easily controlled process
- Tolerant to contamination
- User friendly
- Flexible Bath
- Hard Finish

#### BENEFITS

- A flexible bath with many applications
- Suitable for European Jewelry with no nickel --- environmentally friendly
- Easy to maintain
- Enhances brightness and luster
- Allows plating of complex shaped parts
- Control and determination of additions done by titration method
- Easy to use in high volume applications
- Color is easily maintained
- Plates over various substrates as a solid end finish and as a relieved antique finish
- Good corrosion resistance

Developing New Products & Chemical Technologies

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Zinex Nickel-Free ViroBlack comes pre-mixed and ready to use. Adjust temperature to 140° F before use.

## Operating Parameters

Temperature	140-170°F	140°F
pH	10.0-11.5	11.0
Current Density Rack	10-40 ASF	30 ASF
Current Density Barrel	2-5 ASF	10 ASF
Voltage Rack	3-7V	4 V@<5% AC Ripple
Voltage Barrel	8-12V	8 V@<5% AC Ripple
Anodes	High Density Graphite/Carbon Anodes	
Agitation	Air & Cathodic Arm Movement	
Filtration	Required 80-100 micron	
Tank Material	Lined or PVC	

## Solution Maintenance

Routine analytical and trouble shooting procedures are performed on a daily basis. Bath concentration is maintained by a two part replenisher.

## Performance

Although the ViroBlack Bath can operate over a range of temperatures, best results have been obtained at 140° F.

## PRODUCT SUITABILITY CHART

CHARACTERISTICS								PRODUCT CONTENT								SUITABLE TO PLATE OVER								UNDERCOAT TO			TEMPERATURE RANGE											
THROWING POWER OF BATH	CORROSION RESISTANCE		SUITABLE TO COAT OVER SUBSTRATE		HARDNESS	MOST INTENDED USAGE		SPECIFIC GRAVITY	MELTING POINT	FUME HOOD REQUIRED	CYANIDE	CHROME	CHELTATORS	ORGANICS	SELENIUM	LEAD	HYDROXIDES	ZINC CASTINGS	ZINC METAL	POT METAL	PEWTER	ELECTROLESS NICKEL	PLATED NICKEL	COPPER	STEEL	SINTERED METAL	TIN	LEAD	STAINLESS STEEL	ALUMINUM	GOLD	SILVER	NICKEL	160°F	140°F	100°F	80°F	70°F
FF	G	Brass Nickel Tim	Hard Good to Polish	Decorative Shiny Finish		8.7	1515°C				N	N	N	N	N	N	N	N	N	N	N	N	Y	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	Y

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