



Metal Finishing Systems

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## **ANTIQUÉ BLACK® M220 Oxidizing Solution**

### **Operating Instructions**

#### **PRODUCT DESCRIPTION**

ANTIQUÉ BLACK® M220 oxidizer is a general purpose browning and blackening solution for use on copper, brass & bronze surfaces, and works on both solid and electroplated parts. Supplied as a liquid concentrate, the product is diluted with water to make up an immersion solution that operates at room temperature to produce medium-dark browns and black finishes. The finish can be highlighted for pleasing antique black, brown or US10B finishes.

#### **OPERATING CONDITIONS**

Bath Make-Up Concentration	20-25% by volume for dark brown and black finishes.
Equipment Construction	10-15% by volume for lighter brown shades.
Ventilation	Acid-proof tank: plastic or PVC lined.
Filtration	None required. No fumes. Desirable for production-scale tanks. Use acid-proof pump and 50-100 micron polypropylene filter element.

#### **PARTS PROCESSING GUIDELINES**

1. CLEAN solid brass parts to remove oils & soils, as needed, using a mild alkaline cleaning solution, such as SAFE SCRUB® M Multi-Metal cleaner, mixed at 10-20% by volume; 130°F; 5 minutes. Alternatively, solid parts can be cleaned by bead blasting. OR, if parts are to be plated, process them through a normal electroplating cycle, depositing a minimum of 0.0002" of plating thickness.
2. RINSE thoroughly in clean, flowing water; 20 seconds, to remove cleaning/plating residues.
3. NEUTRALIZE CYANIDE residue by immersing parts in 5% sulfuric acid (or sulfuric acid salts at 1 oz/gal) at room temp for 20-30 seconds. If there is any tarnish on the surface, stronger acid may be needed, such as 10-20% sulfuric acid.
4. RINSE thoroughly in clean, flowing water; 20 seconds.

5. OXIDIZE surface by immersing parts in ANTIQUE BLACK M220 solution for 1-3 minutes, or until desired color is achieved. Gentle agitation helps to ensure good contact.
6. RINSE thoroughly in clean, flowing water; 20 seconds.
7. DRY parts and apply appropriate topcoat sealant. OR, DRY & HIGHLIGHT the surface with a Scotchbrite® wheel or abrasive pad, or equivalent, to produce an antique or distressed surface. Then, SEAL with lacquer, wax or oil, as appropriate to the end-use of the article.

## **BATH MAINTENANCE**

The M220 bath can be operated as a semi-permanent bath in the process line and can be controlled by total acid titration or atomic absorption (using a selenium lamp). Maintain bath strength at 80% of original make-up or higher. Use a particle filter to keep the bath clean.

***Before Using This Product – Please Read, Understand and Follow all the Precautions shown on the Product Label and on the Material Safety Data Sheet.***

The Material Safety Data Sheet can be found on our website: [www.birchwoodcasey.com](http://www.birchwoodcasey.com)

**Always Apply Appropriate Labels to any Container used to Store or Apply this Product.**

**PACKAGING:** 55 gallon non-returnable drums. Store in closed containers.

**NOTE:** The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, Birchwood Laboratories, Inc. makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, Birchwood Laboratories, Inc. will not be responsible for damages of any kind resulting from the use of or reliance upon such information.

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