

ACCU-LABS INC.

4831 S. Whipple Avenue
Chicago IL 60632
Phone: 773.523.3100 Fax: 773.523.4008
www.accu-labs.com

A2LA Accredited ISO/IEC 17025:2005 Certificate # 2558.01

BLACKEN 400

Blacken 400 operated electrolytically produces a hard black uniform coating on nickel, copper and brass. The primary function of Electrolytic Blacken 400 is decorative; however it is used widely in the Automotive Industry to produce glare-free surfaces with an attractive appearance.

Make-Up

Nickel and/or Carbon anodes are recommended for use. (We suggest using $\frac{1}{4}$ Nickel and $\frac{3}{4}$ Carbon). The deepest black is obtained with all Carbon anodes. Variation in black color may be produced by adding Nickel anodes up to 50% of the total anodes.

Blacken 400 is made up at 16 oz. per gallon. Fill the tank $\frac{3}{4}$ full with lukewarm water. Add the required amounts of Blacken 400 salts and stir until completely dissolved. Fill the tank to final volume and maintain temperature range between 100°F to 120°F.

Operating Guidelines

- The parts must be thoroughly cleaned and nickel-plated prior to use of Blacken 400.
- The recommended current density range is from $\frac{1}{2}$ to 3 amps per sq. ft. with the optimum range being 1 amp per sq. ft. Current densities above 3 amps per sq. ft. generally do not produce black coatings.
- The Blackening times may range anywhere from 2 to 15 minutes, depending upon the shape of the part.
- After Blackening, the parts should be rinsed promptly and thoroughly in running hot or cold water.

Control

The pH of a freshly made up solution is approximately 5.2. The pH will gradually rise as it is used. Maintain the pH below 6.2 by using small additions of dilute sulfuric acid.

If the normal blackening time increases, an addition of 4 oz. per gallon of Blacken 400 will generally reduce the time required to blacken the parts to normal; a sample of the bath should be sent periodically to Accu-Labs for analysis.

Equipment

We recommend using rubber, plastic or PVC lined tanks.

Caution

Blacken 400 may be irritating to the skin. If solution comes in contact with skin or eyes flush with plenty of cold water. Always wear eye and personal protective gear when working with or handling this material. Read MSDS prior to use.

Disclaimer

The information contained in this bulletin is, to our best knowledge, true and accurate, but all recommendations or suggestions are made without guarantee, since the conditions of use are beyond our control. Accu-Labs, Inc. disclaims any liability incurred in connection with the use of these data or suggestions.