

B/Ox™ 311 GEL

Room Temperature Oxidizing/Antiquing Gel for Brass, Bronze, and Copper via Swab-on or Brush

It is an instant-acting black chemical conversion/antique finish for all brass, bronze, and copper. Used at full strength to produce a black finish. These products meet the standard of the Living Building Challenge Red List: An international sustainable building certification program.

Finishing Procedure

1. Degrease the area to be refinished with alcohol, chlorinated solvents, vapor degreasing, a liquid detergent, **EPI's E-Kleen 163** (a room temperature soak cleaner) or **E-Kleen 154** (acid base cleaner). Do not use petroleum solvents. Let the cleaner work 1-3 minutes. The cleaning step may be skipped if the parts have been sandblasted or mechanically prepared, as long as the parts are free from any oils, lacquers, finger prints, or other soils. If this is the case, proceed to step #3.
2. Rinse with running water, a damp sponge or damp cloth if a liquid detergent, **E-Kleen 163** or **154** was used. If water breaks occur during rinsing, try using **E-Kleen 163** or **154** again. Water breaks mean the substrate is not clean.
3. Apply full strength **B/Ox 311 GEL** generously with a cotton swab, sponge or brush using a light rubbing action. Use care to ensure a smooth and even coverage. Continue light rubbing action for 1 to 3 minutes. It also helps to keep adding some fresh gel if the reaction has stopped. The depth of blackness is controlled by the length of time the solution is left in contact with the metal surface.
4. Rinse with running water, a damp cloth or damp sponge.
5. Wipe dry.
6. Rub area with a soft cloth or brush to remove the non-adherent layer of spent chemicals from the surface.
7. To enhance the depth of blackness and impart corrosion resistance, the finish must be sealed with one of **EPI's E-Tec** brand of corrosion inhibitors. **E-Tec 502** will leave a slightly oily finish; **E-Tec 505**, a soft, non-tacky dry finish; **E-Tec 520**, a hard clear acrylic finish; and **E-Tec 521**, a clear wax finish. For architectural finishes use **E-Tec 520**, **E-Tec 521** or **RENWAX**.

The **B/Ox** finish in itself imparts very little corrosion resistance. However, its porous structure will absorb the sealant, promoting long term corrosion resistance. The depth of blackness will be enhanced as the sealant is absorbed into the finish and may require 24-hour aging.

A non-adherent or spotty finish indicates improper degreasing, incomplete corrosion removal or other surface contamination. Mechanically remove the **B/Ox 311 GEL** to the original substrate.

Acid resistant plastic containers must be used to contain **B/Ox 311 GEL** solutions.

Caution

The **B/Ox 311 GEL** solutions are mildly acidic. Avoid contact with eyes, skin and clothing. Wear eye shields, protective gloves and apron when preparing solutions and while working with the solutions. Do not mix the **B/Ox 311 GEL** solutions with alkaline materials, cyanide containing materials, or any other chemical substances. **The B/Ox 311 GEL solutions are toxic if taken internally.** Do not work with the **B/Ox 311 GEL** solutions without first reading and understanding the **SAFETY DATA SHEET** furnished by **EPI**.

Packaging:

One (1), five (5) and 55-gallon non-returnable containers.

IMPORTANT NOTICE: For Industrial Use Only

The following is made in lieu of all warranties, expressed or implied, including the implied warranties of merchantability and fitness for purpose: The seller's and manufacturer's only obligation shall be to replace such quantity of the product as proved to be defective. Before using, user shall determine the suitability of the product for its intended use, and user assumes all risk and liability whatsoever in connection therewith. **Neither seller nor manufacturer shall be liable either in tort or in contract for any loss or damage, direct, incidental or consequential, arising out of the use or the inability to use the product.**

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