GuardCoat™ Black Enhancer

Water-based lacquer for accentuating Blackening Antiquing Chemistry on different metal substrates.

GuardCoat™ Black Enhancer is a clear-coat glossy water-based, lacquer, which produces a clear, high gloss acrylic finish. GuardCoat™ Black Enhancer contains minute organic solvent mixture. The cured lacquer finish will not dissolve in water, and the resulting finish has good resistance to scuffing and scratching. The benefits are; depth, clarity, non-flammable proprietary product with environmentally friendly aspects. The milky appearing lacquer allows the user to determine the coverage and film depth as the part is coated.

GuardCoat™ Black Enhancer is a true water-soluble lacquer, which depends on a complex matrix: binder, pigments, and additives including a proprietary mixture of co-solvents that are responsible for drying time, film thickness (impacts viscosity), flexibility, adhesion, and screen printability. The lacquer can be removed in cleaning cycles typically employed in electroplating, eliminating the need for hazardous paint strippers. The dried lacquer finish can also be removed with acetone or with hot alkaline cleaner.

The excellent adhesion, hardness and flexibility of GuardCoat™ Black Enhancer leaves a surface that can withstand subsequent forming and assembly operations with minimal damage. GuardCoat™ Black Enhancer provides an excellent base for decals, silk screening and other painting operations. Baking will increase hardness and durability of this lacquer.

Coating Properties

Product is RTU (Ready to Use as is), easy application.
Clear when dry and opalescent while wet for film gauge.
Good protection, with expected performance to 280 hours resistance NSS (Salt Spray Test).
Dried Lacquer Gloss is 90^{+}, which is the level of shine or reflectivity by the gloss meter.
Excellent adhesion and flexibility: pass conical mandrel test.
Sward Hardness is 24, which is the hardness of this organic lacquer coating when baked.
Baking does not reduce the corrosion protection.
Yields excellent depth and clarity.
Water-based and environmentally friendly.
Safe and non-flammable.
Fast, hard, air dry or oven-baked.
Normally dry to touch in about 20 minutes.
Application for architectural metals, hardware, nuts, bolts, screws, fasteners, and costume jewelry.

Operating Conditions

Concentration:	20 - 50 % b.v.	Higher Concentrations give less iridescence.
Temperature:	20 - 65°C (70-150°F)	Higher temperature promotes faster drying.
pH:	7.5 - 12.0	Higher pH give better salt spray results.

GuardCoat™ Black Enhancer

Make-Up solution with DI water preferable. Concentration is easily controlled by the appearance of the finish. pH is maintained with ammonia. Acid drag-in prevents good film adhesion, and should be avoided.

To obtain great results it is imperative to have surfaces clean and free of dirt, oil and rust. Parts that are wet with water can be dipped into the lacquer, however better performance results with warm dried parts. Warm dried parts are best for dipping to avoid dragging too much water into the lacquer. Corrosion properties are best when Guardcoat™ Black Enhancer is used at full strength. Up to 50% water as suggested above can be added, however it will significantly reduce the corrosion protection.

Equipment

Steel tanks and heating coils are suitable.

Analytical Procedure - Refractometer Method

1. Ensure the solution is between 18 - 35ºC. A temperature above 65°C may damage the instrument.

2. Lift the cover plate to expose the prism and place 2-3 drops of GuardCoat™ Black Enhancer sample on the face of the prism.

3. Close the cover plate over the prism immediately after placing the GuardCoat™ Black Enhancer solution on the prism's face. Make sure that the sample spreads across the entire surface of the prism without any air bubbles or dry spots.

4. Hold the cover plate in contact with the prism and point the instrument towards a light source and look through the eye-piece and take the reading at the point where the dividing line between light and dark crosses the scale.

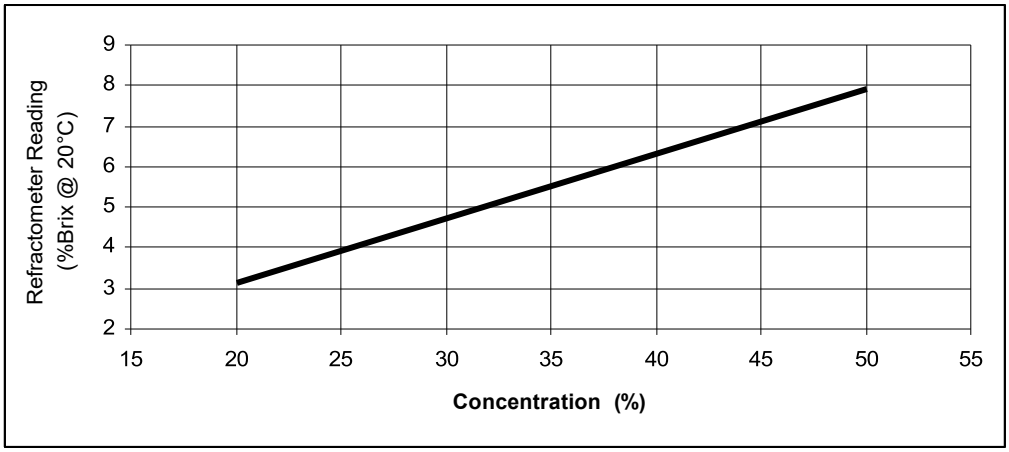
5. Compare reading on scale to the chart in-order to determine the percent by volume of GuardCoat™ Black Enhancer or, use the following factor;

   Concentration of GuardCoat™ Black Enhancer (%) = °Brix x 6.3

6. Use a soft cloth or soft tissue paper moistened with water for wiping the prism and cover plate.

Aqua Bond Inc. · PO Box 63635, Toronto, ON M1V 5K2·Tel. 416·754·7211·www.aquabond.ca

GuardCoat™ Black Enhancer



The data and statements contained in this bulletin are based on testing information and are believed to be accurate and reliable. This bulletin is not a Guarantee or Warranty, express or implied regarding the products use. The product is sold on the condition that the purchaser will do their own tests to determine the suitability of the product in a particular application.
READ THE SDS BEFORE USING THIS PRODUCT

Aqua Bond Inc. · PO Box 63635, Toronto, ON M1V 5K2·Tel. 416·754·7211·www.aquabond.ca