

REVERE PREMIUM ZINC

SMOOTH & PURE

Revere premium Triplemetal[®] zinc starts with the highest grade zinc spelter available, which is carefully processed in our facility with precision traces of aluminum and magnesium, to produce a smoother etch. Our unique annealing and thermal flattening process helps shape grain growth to ensure the finished plate maintains a uniform, flat character. The zinc etches "soft", yet is durable enough to stand the test of time. The result is superior zinc etching performance proven effective around the world.

COMPLEMENTARY PRODUCTS

Premium Triplemetal[®] zinc is available uncoated ("polished"), or presensitized with our proprietary aqueous developed photoresist, Hydro-Coat[®]. Revere is the only manufacturer/supplier to offer a complete photoengraving "system" for zinc. Complementary designed additives, developers and top removers function at a superior level when used together. Revere Hydro-Coat[®] zinc coupled with Hydro-Coat[®] developer, etched in a Super Etch[®] or Velv-Etch[®] bath ensures a quality etch at any depth.

THINK "CUSTOMER"



Revere Copper and Brass was the principle supplier of copper to the Edes Manufacturing Company, a producer of photoengravers' metal plates which was established in 1850 in Plymouth, Massachusetts. In 1959 Revere Copper and Brass acquired Edes Manufacturing and continues to manufacture photoengravers' plates of copper, magnesium, zinc, brass and steel under the name of Revere Graphics Worldwide.

We want your customers to continue to be impressed with the quality of your work. Therefore, we developed a family of products that do most of the work for you. While true craftsmanship is in the ultimate hands of the etcher, our product line is guaranteed to make you look like a star.

"THE ULTIMATE ACID TEST"

Any engraver will appreciate the unique benefits provided by our exclusive acid-resistant, fine resolution, aqueous developed photoresist, Hydro-Coat[®]. Hydro-Coat[®] allows you to use any of your current "blockout" solutions, allowing easy clean-up without dissolving or damaging the critical image area. Superior density and adhesion are achieved through a proprietary metal surface preparation process to make our coating "bullet proof". Accept no imitations, specify Revere Hydro-Coat[®] for the ultimate acid test.

DIVERSE APPLICATIONS

While the primary uses for zinc have changed over the years, it is proven effective and maintains a presence in certain niche markets. Once used in high volume direct printing by the newspaper industries around the world, zinc is more commonly used today for plaques, awards, thermal dies, foil stamping, intaglio and letterpress.



"ETCH WITH THE BEST... ASK FOR REVERE"



Hydro-Coat[®] products enable engravers to eliminate the use of solvent base developers and top removers used in the etching process. Hydro-Coat[®] products are safer for the environment and easier to work with than those developed by solvent solutions.

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COMPLEMENTARY ZINC PRODUCT LINE

Premium Zinc

Non-sensitized

Presensitized:

- Hydro-Coat® Zinc
- Alfa Zinc
- Pos-E-Zinc (Conta)®

Premier Additive

- Super Etch®
- Velv-Etch®

Developers

- Hydro-Coat® Hot
- Hydro-Coat® Cold
- Revere Zinc & Copper (Alfa)
- Pos-E-Plate Developer

Top Remover

- Hydro-Coat®

Photoresist

- Liquid Hydro-Coat®

Plate Protector

- Express Guard®

Equipment

- Image Mate Exposure Units (2428, 3040)
- Hydro-Coat® Processor (HCP500)
- Etching Machines (40 Liter)

13 STEPS TO SUPERIOR HYDRO-COAT® ZINC ETCHING

- 1) Storage**
Store Revere premium zinc photoplates in a cool, dry place.
- 2) Artwork**
Inspect negative carefully for opaque pinholes in the black areas. Pinholes result in pimply etching if not opaqued.
- 3) Exposure**
Expose using a Stouffer 21-Step Sensitivity Guide to a solid step 8-10. Overexposure can cause excessive shadow-dot plugging and does not increase etching resistance of coating. Underexposure causes wash off in development and etching failure.
- 4) Developing**
Mix one part of Heated or Cold Hydro-Coat® Developer with five parts water. Heated Hydro-Coat® Developer should be used at 105° - 115°F (41° - 46°C). Cold Hydro-Coat® Developer can be used at room temperature 70° - 85°F (21° - 29°C). In case of evaporation loss, water alone should be added back to the Hydro-Coat® Developer solution. DO NOT add back concentrate Hydro-Coat® Developer to compensate for evaporation loss. Heated developer should be changed when developing times exceed 90 seconds. Cold developer used in trays should be changed daily.
- 5) Post Develop-Hydro-Coat®**
Hydro-Coat® plates should be post developed to enhance screen and fine line reproduction. Scrub horizontally and vertically using a wet litho pad. Follow with a clean water rinse and dry plate thoroughly using clean compressed air or by blotting with a clean, absorbent cloth.
- 6) Touch Up**
Examine plate for flaws in the image areas retained on the plate and touch up as needed with Retouch Solution.
- 7) Weigh**
Record initial plate weight on your Revere etching log prior to etching. Scale must be capable of weighing to the nearest 1/4 ounce.
- 8) Descum**
Descum Hydro-Coat® zinc plates using a solution of sulfuric acid and nitric acid. Refer to descum formulas on charts available from Revere. Wipe the descum solution across the plate both horizontally and vertically. For best results, apply solution #1 followed by solution #2, with a final repeat application of solution #1. Use separate descum pads for each solution. Rinse between solution application.
- 9) Rinse**
Rinse plates thoroughly with water after descumming.
- 10) Plate Protector**
An application of Revere's Express Guard Plate Protector is recommended prior to etching to enhance performance of etching bath by preventing oxidation which can cause pimples.
- 11) Etch**
Etch plates according to recommendations of etching machine manufacturers and Revere's technical data sheets.
- 12) Replenish Bath**
Record plate weight after etching to determine proper acid replenishment. Refer to acid addition chart provided separately. Check dip gauge and restore proper level in bath by adding water or draining excess.
- 13) Top Remover (Optional)**
Use Hydro-Coat® Top Remover according to directions on label.

Recommended Zinc Descum

Solution #1: H ₂ SO ₄ /HNO ₃	Solution #2: HNO ₃
• 3.4 L water	• 3.4 L water
• 350 ml concentrate Sulfuric Acid	• 760 ml Nitric Acid (42°Bé)
• 30 ml Nitric Acid (42°Bé)	

(Above formulas for each solution will make 3.8 L or 1 gallon)

Technical Assistance

Call 1-800-336-ETCH (3824) in the USA or Canada for corresponding wall charts, videos, and support materials. Please fax us your request at 508-747-4589, or e-mail your request to info@etchrevere.com.