

# **Technical Data Sheet**

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# Metal Effects® Copper Paint **Blue or Green Patina Finish**

Water Base Acrylic, Low VOC System Creates a "Real" Patina Metal Finish Brush, Roll or Spray apply



## **Products Used**

- **Acid Blocking Primer (AM203)**
- **Copper Paint (ME149)**
- Blue Patina (PA902) or Green Patina (PA901)
- Permacoat Sealer (AM201)
- **Metal Effects MasterClear Matte (AM202)**

Modern Masters - Metal Effects<sup>®</sup> Copper Metallic Paint (ME149) is a water-base, modified acrylic paint with a high concentration of real copper particles. It will tarnish naturally over time, if exposed to the proper elements, but Metal Effects Green Patina (PA901) or Blue Patina Aging Solutions (PA902) will speed up the oxidation process and create a beautiful, authentic green or blue patina finish in minutes. Metal Effects Copper Metallic Paint can be brush, roll, or spray applied. The Metal Effects Green or Blue Patina can be applied with a brush, sponge, spray bottle, or plastic pump sprayer. The Protective Clears can be applied by brush, varnish roller or spray equipment. The entire system can be applied to any properly prepared surface, including metal, wood, drywall, plaster, paintable wall coverings, canvas or muslin, and plastic surfaces. Popular applications range from full interior and exterior walls, moldings, trim, columns, doors, railings, to lamps, vases, and planters.

Modern Masters - Metal Effects Acid Blocking Primer (AM203) is a unique water-based acrylic primer. Unlike other primers, it is especially formulated to block Metal Effects Patina Aging Solutions and Activators from reaching the metal, wood, or reactive substrate. This helps prevent the formation of rust or other oxidation products from forming under the paint film. Acid Blocking Primer will also block out alkali salts. tannins, acid salts, or other unwanted contaminates from 'bleeding through' to the Metal Effects Metallic Paint film and causing adverse reactions and unwanted color changes in the oxidized finish. Acid Blocking Primer can be brush, roll or spray applied.

Modern Masters - Metal Effects Permacoat™ Patina Sealer is a water-based 100% acrylic sealer that dries to a satin like finish. Permacoat is especially formulated

to seal Metal Effects Metallic Paints that have been oxidized with Metal Effects Patina Aging Solutions and Activators. Metal Effects Permacoat Patina Sealer is highly recommended to seal the Metal Effects Rust finish on interior areas where there may be contact to prevent rub-off and exterior applications to prevent runoff of the finish onto surrounding surfaces.

Unlike other acrylic varnishes. Permacoat will form a film over acidic surfaces without cracking or yellowing. Permacoat is pH balanced to minimize the rust colors tendency to deepen in color tone when using other nonrecommended clear coats.

Modern Masters - Metal Effects® MasterClear® Matte Protective Topcoat (AM202) is a water-based, one part, self-crosslinking, aliphatic polyurethane/acrylic non-yellowing topcoat, intended for interior and exterior applications. The inherent high abrasion resistance of MasterClear also extends the service life of Metal Effects oxidized finishes on high-traffic interior surfaces and exceeds 3,000 scrub cycles.

**Surface Preparation – Remove all loose, peeling paint.** Patch and repair any surface imperfections before using the Metal Effects Acid Blocking Primer. All surfaces should be sound, clean and free of oil, grease, wax, and other contaminants, and completely dry prior to priming. Surfaces previously primed require light sanding. Scuff sand any glossy surfaces. Stir well before and occasionally during application. Do not thin the Acid-Blocking Primer. If unsure of the substrate, test a sample area to ensure the desired results. Apply at least two coats of Metal Effects Acid Blocking Primer to completely seal and block the surface. Some metal

surfaces, such as bare aluminum, galvanized metal, or rusted or slag metals, will need a specialty primer from our recommended primer list, applied prior to the application of Metal Effects Acid Blocking Primer. If this is the case, read the specific information for the recommended primer prior to beginning your project. Properly prime the clean, dry surface with the recommended primer and allow the surface to dry completely—preferably overnight. Then follow the directions for applying Acid Blocking Primer. **Note:** Lower temperature and higher humidity will lengthen the dry and cure times of primers.

#### **Recommended Primers:**

### Acid Blocking Primer by Modern Masters

Substrates: previously painted surfaces, drywall, drywall with texture, paneling and wall covering, muslin or canvas, ferrous metal, PVC piping, finished and unfinished wood

- Sierra Griptec by Rustoleum
- Sierra Metalmax Gray Primer by Rustoleum Substrates: galvanized metal
- Mathys Pegalink by Rustoleum

Substrates: aluminum, anodized metals, copper piping, window and door mullions.

• Mathys Peganox by Rustoleum Substrates: rusting metal, slag metal

For MSDS and Technical Data Sheets for these primers go to www.modernmasters.com and search in our technical section of the web site.

For Additional Information and Architectural Specifications visit <u>ARCAT.com</u> and search for Modern Masters Inc. or a specific product name.

Application – Modern Masters Metal Effects paints can be brushed, rolled, or spray applied (See specific equipment requirements under Spraying:) onto any paintable, properly primed, interior or exterior surface, such as walls, ceilings, columns, trim, doors, furniture, and paintable wallcoverings. Always test the product in a small, inconspicuous area before beginning a project to see if the desired results are attained. We recommend preparing a sample board prior to beginning a project to check color and technique. The paint should be mixed thoroughly before using. Do not apply in temperatures below 58°F/14°C or above 85°F/29°C.

**Step 1:** Apply a first coat of Metal Effects Copper Paint and allow to dry.

**Step 2:** Apply a second coat of Metal Effect Copper Paint in the same manner. The Green or Blue Patina Aging Solutions should be applied while this coat is still wet (within 5 minutes).

**Brushing:** Use a high-quality brush recommended for water-based semi-gloss paints.

**Rolling:** To roll Metal Effects Copper Paint use a highend ½" nap roller and/or a natural sea sponge roller for added effect.

**Spraying:** To spray Metal Effects, thin with up to 16 fluid ounces/473 milliliters of water to one gallon/3.78 liters of Metal Effects Iron Paint. Thin carefully, as over thinning of the paint will result in loss of hide and a reduction of the desired appearance. Use an HVLP gun or a conventional cup gun with the fluid and air supply from a pressure pot and compressor. Air pressure at the HVLP spray gun needs to be approximately 30 psi, with greater pressures at the tank, approximately 60 psi. Examples: Binks- Mach 1 HVLP, with a 94-nozzle set up (0.55 or 1.4mm diameter fluid tip and a 90P air nozzle). The settings for this equipment were: Fluid Pressure-25psi and Air Pressure-45psi. Binks- 2001 Conventional, with a 66SS air nozzle set up (0.70 or 1.8 fluid tips and a 66SD air nozzle). The settings for this equipment were: Fluid Pressure-30psi and Air Pressure-60psi. Use a NIOSH approved respirator when spraying. Provide adequate ventilation. **Note: Do** not use turbine-type "air compressors" to power the HVLP spray gun and do not use airless spray systems.

**Taping** – Use high quality, low-tack tape when taping over surfaces that have been previously painted with Metallic Paint. When painting over taped-off areas be aware that Metallic Paints exhibit poor early adhesion properties and are elastomeric (they stretch) before curing. Consider cutting along the tape edge with a razor blade to avoid delaminating the fresh paint from the substrate.

**Dry Times** – Recoat time is approximately ½ hour. Dry-to-touch time is approximately an hour. (Drying times were recorded at 70°F and 50%RH): **Note:** Lower temperature and/or higher humidity will lengthen the dry and cure times.

**Coverage** – One gallon/3.78 liters will cover approximately 296 square feet/28 square meters. Approximately 1.5 mils dry film thickness per coat. A minimum of 3 mils dry film thickness is required for hide and full color development.

**Step 2:** Apply the *Green or Blue Patina Aging Solution* with a brush, sea sponge or spray apply with a plastic pump sprayer. After 5 minutes, reapply *Patina Aging Solution*. As the activated surface dries (approx. 30-40 min.) a real patina finish will appear. Cold temperature and/or humid conditions will prolong the oxidation process and dry time.

Protective Clear Coating —The patina surface will continue oxidizing over time but you can stop the aging process and protect with Metal Effects® Permacoat Patina Sealer. DO NOT USE OTHER SEALERS OR VARNISHES. Permacoat can be applied by brush, roller or spray. Surface must be completely dry (24-48)

hours) prior to top coating. Begin by adding water to the Permacoat in a 1:1 ratio and stir well. Apply two coats (second coat can be applied after approx. 1/2 hour). Let surface dry for 1 hour before handling and 24-48 hours before applying any additional topcoats. For exterior surfaces or high traffic interior surfaces, apply 1 coat of Modern Masters Metal Effects MasterClear Matte Protective Topcoat.

**Clean Up** – Clean brushes, rollers, tool, and equipment with soap and warm water immediately after use. Do not reuse containers and properly dispose of empty containers.

Material VOC – Metal Effects Copper Paint contain <180 grams per liter of VOC, regulatory measurement. And are compliant with SCAQMD Rule: 1113, Metallic Coatings category. Metal Effects Acid Blocking Primer, Rust Activator and Permacoat, contain no VOC. Metal Effects products contain No Hazardous Air Pollutants.

Handling & Storage – Close tightly all containers when not in use. Store in a cool dry place away from direct sunlight. Do not freeze. If Metal Effects Copper paint becomes frozen, allow the paint to completely thaw and come to room temperature before use. Stir thoroughly before use.

**Disposal** – Dispose of unused or unwanted product in accordance with local laws regulating water-based coatings.

Health & Safety - Use in a well-ventilated area. Avoid contact with eyes. Wash hands thoroughly with soap and warm water after use. Do not take internally. When spraying or sanding, use a properly-fitting, NIOSH approved respirator per the manufacturer's instructions. Warning! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead

**Skin contact:** Thoroughly wash with soap and warm water before the coating dries. Individuals with sensitive skin may require gloves.

**Eye contact:** Rinse with clean water for 15 minutes. Seek medical attention.

**Inhalation:** To help prevent irritation, use only in well-ventilated areas. If irritation occurs, move to fresh air. If irritation persists, seek medical attention.

**Ingestion:** Do not induce vomiting. Seek medical attention.

Read the Material Safety Data Sheet for Additional Health and Safety Information.

**Warranty** – This product will perform as claimed if directions are followed. Directions are as complete as possible, but cannot encompass all conditions, applications, techniques, and/or surfaces, which are beyond our control. Warranty is limited to replacement or refund value of product actually used, if such product proves defective within two years of manufacture. No other warranty is expressed or implied.

**Technical Assistance** – For additional technical assistance contact our Technical Department at 818-683-0201 or e-mail technical@modernmasters.com.

**Disclaimer:** Modern Masters, Inc. believes, to the best of its knowledge, information, and belief, the information contained herein to be accurate and reliable as of the date of this material safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials and makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained

Container Size	Case Pack	Case Weight Under
Reactive Metallic	Paint	
1 six ounce	6	5 lbs.
1 Pint	4	8 lbs.
1 Gallon	2	31 lbs.
Patina Aging Solu	tion	
1 four ounce	4	2 lbs.
1 Pint	4	5 lbs.
1 Gallon	2	19 lbs.
Acid Blocking Prin	ner	
1 four ounce	4	3 lbs.
1 Pint	4	6 lbs.
1 Gallon	2	23 lbs.
Permacoat Sealer	•	
1 four ounce	4	3 lbs.
1 Pint	4	5 lbs.
1 Gallon	2	19 lbs.
Metal Effects Mas	terClear Matte	е
1 four ounce	4	3 lbs.
1 Pint	4	5 lbs.
1 Gallon	2	18 lbs.