

	TECHNICAL DATA	MDM-09
 MODERN MASTERS®	MODERN MASTERS® METAL EFFECTS® OXIDIZING COPPER PAINT / GREEN PATINA FINISH	

DESCRIPTION AND USES

Modern Masters® Metal Effects® Oxidizing Copper Paint 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 Aging Solution will speed up the oxidation process to create a beautiful authentic green patina finish in minutes. 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.

PRODUCTS

6 Oz.	16 Oz.	GALLON	DESCRIPTION
ME14906	ME14916	ME149GAL	Copper
4 Oz.	16 Oz.	GALLON	DESCRIPTION
PA90104	PA90116	PA901GAL	Green Patina

RECOMMENDED PRIMER

4 Oz.	16 Oz.	GALLON	DESCRIPTION
AM20304	AM20316	AM203GAL	Metal Effects Primer

Note: Lower temperature and higher humidity will lengthen the dry and cure times of primers

COMPATIBLE PRIMERS

METAL SUBSTRATES

Sierra Performance™ Griptec™
Sierra Performance™ Metal Max Gray Primer
Substrates: galvanized metal

X-I-M® UMA®
Substrates: aluminum metals, copper piping, window and door mullions

Rust-Oleum® ROC PRIME
Substrates: rusting metal, slag steel

PRODUCT APPLICATION

SURFACE PREPARATION

ALL SURFACES: Remove dirt, grease, oil, salt and chemical contaminants by washing the surface with a commercial detergent or other suitable cleaner. Rinse thoroughly with fresh water and allow to fully dry. If any mold or mildew is present on the surface clean further with one quart of household bleach added to a gallon of water. Rinse with clean water. Severely mildewed areas should be cleaned with a chlorinated cleansing powder and thoroughly rinsed with water. All surfaces must be dry at time of application.

PRODUCT APPLICATION (cont.)

SURFACE PREPARATION (cont.)

PREVIOUSLY COATED: Previously coated surfaces must be sound and in good condition. Smooth, hard or glossy finishes should be scarified by sanding to create a surface profile.

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.

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 55°F/13°C or above 85°F/29°C.

BRUSHING: Use a high-quality brush recommended for water base semi-gloss paints.

ROLLING: To roll Metal Effects Copper Paint use a high-end ½" nap roller and/or a natural sea sponge roller for added effect.

SPRAY: The Metal Effects Copper Paint can be spray applied using conventional air atomized spray or HVLP. Thin with clean, fresh water up to 12.5% by volume, one pint (16 fl. oz.) per gallon. Do not over thin as this can result hide and appearance. The actual amount of thinning will depend on the type of spray equipment being used. Be sure the air supply is clean and oil free.

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PRODUCT APPLICATION (cont.)

SPRAY (cont.)

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.

APPLICATION INSTRUCTIONS

STEP 1: Apply at least two coats of Metal Effects 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 Primer. If this is the case, read the specific information for the recommended primer prior to beginning your project.

STEP 2: Apply first coat of Metal Effects Oxidizing Copper Paint and allow to dry. Apply a second coat of Metal Effects Oxidizing Copper Paint in the same manner. The Green Patina Aging Solution should be applied while this coat is still wet (within 5 minutes).

STEP 3: Apply the Green Patina Aging Solution with a brush, sea sponge or spray apply with a plastic pump sprayer. 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.

PRODUCT APPLICATION (cont.)

APPLICATION (cont.)

STEP 4: (Optional) Protective Clear Coating – Patina finishes do not require a clear protective finish, except if the patina surface is subject to repeated hand contact, such as hand rails. If a protective sealer/topcoat is desired, use Metal Effects Permacoat Xtreme. **DO NOT USE OTHER SEALERS OR VARNISHES.** Permacoat Xtreme can be applied by brush, roller or spray. Surface must be completely dry prior to top coating (minimum of 24 hours). First coat: Add equal parts of Permacoat Xtreme with water and stir well before applying. Second coat: Apply Permacoat Xtreme at full strength. Let surface dry for 1 hour before handling. Full cure time is 7 to 10 days.

DRY TIMES: Recoat time is approximately 30 minutes. Dry-to-touch time is approximately 1 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.

CLEAN UP: Clean brushes, rollers, tool, and equipment with soap and warm water immediately after use. Promptly wipe up spills and splatters with a damp cloth.

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 Oxidizing 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.

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PHYSICAL PROPERTIES			
		OXIDIZING COPPER PAINT	GREEN PATINA
Resin Type		Water-Based Acrylic	NA
Active Ingredient		NA	Hydrochloric acid
Pigment Type		Copper and iron	NA
Solvents		Water, Glycol Ethers	Water
Weight	Per Gallon	10.32 lbs.	8.62-9.65 lbs
	Per Liter	1.24 kg	1.03-1.04 kg
Solids	By Weight	39.52%	7.80-7.84%
	By Volume	25.37%	4.61%
Volatile Organic Compounds		<100 g/l	0 g/l
Recommended Dry Film Thickness (DFT) per Coat		1.5 mils	0.25 mils
Wet Film to Achieve DFT (Unthinned material)		6 mils	5.5 mils
Practical Coverage at Recommended DFT (assume 15% material loss)		210-270 sq.ft./gal.	230-290 sq.ft./gal.
Dry Times at 77°F (25°C) and 50% Relative Humidity	Touch	1 hour	NA
	Handle	2 hours	NA
	Recoat	2 hours	NA
	Full Cure	3-4 hours	NA
Shelf Life		5 years	
Flash Point		200°F	
Safety Information		For additional information, see SDS	

Calculated values are shown and may vary from the actual manufactured material.

The technical data and suggestions for use contained herein are correct to the best of our knowledge, and offered in good faith. The statements of this literature do not constitute a warranty, express, or implied, as to the performance of these products. As conditions and use of our materials are beyond our control, we can guarantee these products only to conform to our standards of quality, and our liability, if any, will be limited to replacement of defective materials. All technical information is subject to change without notice.



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