



TECHNICAL DATA SHEET

Commercial • Industrial • Residential

PROTECH High Performance Finishes **METAL MASTER - Universal Primer** PREMIUM, WATERBORNE, ANTI-CORROSIVE PRIMER (4087 Series)

DESCRIPTION

Metal Master Universal Primer is a Single component, Low VOC, Interior/Exterior, Premium quality, Waterborne, Acrylic, Rust-inhibitive/Anti-corrosive coating for priming properly prepared Ferrous and Non-ferrous metal surfaces.

Metal Master Universal Primer provides good Corrosion resistant with excellent Adhesion to a wide range of metals and can also be used as a tie-coat when tested on difficult substrates or as a self-priming finish for overheads/ceilings.

The user friendly formula of Metal Master Universal Primer is formulated to be Low sheen, Non-flammable and Low odor with Low VOC content to meet green building design standards.

Metal Master Universal Primer is Flash rust resistant and is designed to be Re-coat tolerant... It can be used in conjunction with Rodda Paint's Premium, Waterborne or 1K Solvent-based Interior/Exterior Top coats for a high quality Commercial/Industrial finish.

INTENDED USE:

- This **'Best in Class'** product is **designed** for Professional Contractors and Homeowners alike, for use on properly prepared **interior/exterior** ferrous and non-ferrous metals such as Structural Steel, Bridges, Tanks, Towers, Piping, Sash & Trim, Metal Doors & Frames, Ornamental Iron, Gutters and Misc. Metal objects
- Ideal for Commercial, Industrial and Residential projects

COATING PROPERTIES

Coating Category	Acrylic Waterborne Primer
Package Size	Available in one gallon cans, five gallon pails Available in Drums & Totes as Special order/MTO
Viscosity	75 – 80 KU
MPI CERTIFICATIONS	#95, #107, #134
OTHER CERTIFICATIONS	CDPH v1.2 Emissions
VOC	<50 g/L
Recommended Film Thickness per coat:	
Wet Film	3.5 – 4.5 mils
Dry Film	1.5 – 2.0 mils

TEST RESULTS

Coating: PROTECH Metal Master Universal Primer Interior/Exterior Waterborne Acrylic	
Adhesion: Method: ASTM D4541 Result: >500 in PSI pull-off Method: ASTM D3359 Result: Steel 5; Aluminum 5; Galvanized 4	Hardness: Method: ASTM 2134 Result: 10 Rocker Method: ASTM 3363 Result: HB Pencil
Coverage Hide: Method: MPI 107 Result: >Pass (White, Gray>94; Red Oxide >99)	Alkali Resistance: Method: 5% Sodium Hydroxide over 1 hour Result: Pass
Flexibility: Method: ASTM D522 (1/8" Mandrel) Result: Pass (180° bend, 1/8" mandrel)	Corrosion Resistance: Method: ASTM D5894 Result: Pass (1008 hours)
Impact Resistance (direct): Method: ASTM D2794 Result: >160 lbs/Direct, >120 lbs/Reverse	Water Resistance: Method: MPI 107; MPI 134 Result: >Pass

SKU INFORMATION:

White: 408701
Gray: 408798
Red Oxide: 408795

PRODUCT WEIGHT:

White: 11.13 lb. per gallon
Gray: 11.03 lb. per gallon
Red Oxide: 10.65 lb. per gallon

FEATURES/BENEFITS:

- Corrosion Resistant
- Rust-Inhibitive
- Excellent Adhesion
- Flexible on Metal Substrates
- Direct to Metal Application
- Easy Application
- Fast Dry for Production Efficiency
- Low VOC
- LEED® v 4.1 VOC Compliant

MARKETS / END-USES:

- Duct Work
- Piping
- Food Processing Areas
- Hospitals
- Industrial Maintenance
- Industrial Machinery
- Farm Machinery
- Plant Maintenance
- Power Facilities
- Processing Equipment
- Sheet Metal
- Storage Tank Exteriors
- Structural Steel
- Galvanized Ceiling/Decking
- Corrugated Metal Roof Deck
- Water & Wastewater Facilities
- Miscellaneous Metals

SUBSTRATES:

Properly Prepared Interior/Exterior:

- Ferrous Metals
- Non-Ferrous Metals
- Old or Damaged Galvanizing
- Previously Painted Surfaces

TINT COLORANT TYPE:

- 896 Industrial Water Based Colorant – applies to White Base only (Max 4 oz/Gallon)

TINT LOAD CAPACITY:

- Check with your Rodda Paint Store/Rep for the tinting information



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6107 North Marine Drive, Portland, Oregon 97203, USA
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COVERAGE INFORMATION

VOLUME Solids	36% White, Gray 34% Red Oxide May vary by base/color
WEIGHT Solids	52% White, Gray 49% Red Oxide May vary by base/color
Finish: Gloss (@60°) Sheen (@85°)	< 5; LOW SHEEN N/A
Applied Coverage	570 Sq. ft. /gal at 1.0 mil Dry Film Thickness assuming 100% transfer efficiency Note: Actual coverage will vary dependent on substrate/surface profile and application method, i.e. - mil thickness, application technique and type of spray tip, amount of fallout, etc. Please contact your Sales Representative for specific project recommendations
Shelf Life	Maximum Shelf Life of 2 years when stored in unopened containers. Subject to re-inspection.
Storage Requirements	Store indoors at 40F – 90F. Keep from Freezing! Store in a Well-Ventilated place. Keep cool. STORE LOCKED UP!

APPLICATION PARAMETERS

Relative Humidity Restrictions	Do not exceed 85% during application or curing phase	
In-service Temperature Limits Continuous: Intermittent:	194F 212F	
Minimum Application Temperature	50F (substrate)	
Maximum Application Temperature	95F (substrate)	
Application & Curing Information – DRY Time	At 59F 3 hours 6 hours 24 hours	At 77F 30 minutes 2 hours 5 hours
	Note: Film thickness, temperature, humidity and air movement will affect dry/cure times	
Application & Curing Information – RECOAT Time	At 59F 24 hours 24 hours Indefinite	At 77F 1 hours 2 hours Indefinite
	Note: Film thickness, temperature, humidity and air movement will affect dry/cure times	
Technical Notes	• Not Recommended for application when the relative humidity is above 85% • Ambient temperatures should be between 50 - 95F • Depending on the depth of the profile, more than one coat of primer may be required to achieve the required D.F.T. • To minimize flash rusting, two coats may be required when applying over bare or rusted steel during conditions of high humidity or cool temperatures FOR INTERIOR/EXTERIOR USE. NOT recommended for severe chemical exposure or for immersion. For Mild to Moderate Atmospheric Exposure.	

COATING RECOMMENDATION:

- Superior performance will result from properly preparing the Surface
- Depending on the depth of the profile, more than one coat of primer may be required to achieve the required Dry Film Thickness
- To minimize flash rusting, **2 coats** may be required, when applying over bare or rusted steel during conditions of high humidity or cool temperatures
- Allow complete cure between coats
NOTE: Air, surface and product temperature must be at 50F-95F during application and drying

MIXING:

- Mix well before using
- Stir thoroughly to a uniform consistency before & during use
- Keep containers tightly sealed when not in use

THINNING/REDUCERS:

- NONE Recommended!
- In hot environments, it may be necessary to add clean tap water to improve performance/workability for Spray use - Use least amount of water for the desired workability
NOTE: Excessive reduction with water will impact the application and efficacy of the coating

APPLICATOR INFORMATION:

BRUSH: Use a nylon bristle brush
ROLLER COVER: Use lint free Roller Cover
NOTE: Lap marks may be visible with Brush/Roller application
AIRLESS SPRAY:
Pressure 3,000 psi
Tip: .013 to .015
HVLP:
Min. Fluid Capacity 2,500 psi
Atomizing Air: 30 - 60 psi
Tip: .013 to .015

CLEANING:

- Immediately wipe up any drips or spatters with a damp cloth
- Clean application tools immediately after use with warm soapy water and rinse thoroughly
- If pausing for a break, wrap wet applicator in plastic wrap or seal in a poly bag
- Prevent rusting of spray equipment – flush with a compliant cleanup solvent after cleaning
NOTE: Follow manufacturer's safety recommendations when using solvents



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SUBSTRATES AND SURFACE PREPARATION

SURFACE PREPARATION IS IMPORTANT - All surfaces must be of uniform porosity, clean, dry and free of mildew, oils, grease, chalk, soap film, sanding dust, mill scale, weld spatter, wax or any other foreign contaminant that can affect the adhesion.

- Remove all loose or peeling material from previously painted surfaces
- Wash with an appropriate cleaner/mild detergent and water solution to remove any contaminants as needed, rinse thoroughly and allow to dry
- Ensure all substrates to be coated are free of Mildew, Mold, Algae or other biological contaminants
 - Wash with a cleaner such as JOMAX or bleach/water (1:3) solution - Apply the solution, scrub the mildewed area, allow solution to remain on the surface for 10 minutes, rinse thoroughly and allow to dry
- Repair all surface imperfections, holes and other voids with appropriate patching compound as required.
- On glossy or smooth surfaces, scuff sand using appropriate sandpaper to provide a uniformly dulled appearance
- Remove all sanding dust and debris prior to painting
- Do not apply at ambient or substrate temperatures below 50F
- Improper surface preparation and cleanup can compromise the longevity of the application

FERROUS SURFACES:

- Minimum SSPC-SP 2/3 Hand/Power Tool Clean. SSPC-SP 6 Commercial Blast preferred.

NON-FERROUS SURFACES:

- Minimum SSPC-SP 2/3 Hand/Power Tool Clean. SSPC-SP 16 Brush-Off Blast preferred.

OLD & GALVANIZED SURFACES:

- Minimum SSPC-SP 2/3 Hand/Power Tool Clean. SSPC-SP 16 Brush-Off Blast preferred.

PRE-PAINTED SURFACES:

- Wash with a mild detergent and water solution to remove contaminants as needed.
- Rinse thoroughly, allow to dry, and then, if needed due to a glossy or hard smooth surface, scuff sand using 100 - 220 grit sandpaper as appropriate. Remove all sanding dust.
- When priming difficult substrates such as, factory siding/Kynar, fluorocarbon or baked polyester polymers the adhesion must be confirmed using test patches.
- Allow test patches one week of dry time before testing adhesion to ensure proper cure.
- Confirm using ASTM 3359 Method A X-cut Tape Test method with results of 4A - 5A prior to proceeding with application.

SYSTEM RECOMMENDATIONS:

Contact your Rodda Paint Representative for any surface prep related questions or any system recommendations.

WARNING! If you scrape, sand or remove old paint from any surface 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. Carefully clean up with a wet mop or HEPA vacuum. For additional information on surfaces that may contain lead paint, contact the U.S. EPA / Lead Information Hotline at **1.800.424.LEAD (5323)**.

CAULKING RECOMMENDATION:

- Repair pre-painted surfaces using an appropriate filler – make sure to fill cracks, holes, voids and any irregularities
- Fill all gaps between windows, doors, trim, etc. with the appropriate caulk
- Allow the Caulk to dry as per the appropriate drying time before application of the paint
 - RODDA PROPlus Siliconized Acrylic Sealant
 - Pro Stretch Acrylic Urethane Elastomeric Sealant

NOTE: Check with your Rodda Paint Store or Sales Representative for specific advice



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SAFETY PRECAUTION

WARNING! Do not handle until **ALL Safety Precautions** have been read & understood.

Contains Harmful Vapors which may affect the brain/nervous system causing dizziness, headache or nausea. Can cause eye & skin irritation and may be harmful if absorbed through skin. **NOTE:** Repeated & prolonged occupational overexposure to solvents can cause permanent brain/nervous system damage.

Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation. **Use only with adequate ventilation.**

WARNING! Proper breathing PPE must be worn during application.

Please Refer to This Product's **Safety Data Sheet (SDS)** for the proper health and safety information – A copy of which can be found on our website, www.rodmapaint.com

First Aid: If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. **In case of eye contact**, flush immediately with plenty of water for at least 15 minutes and get medical attention; **for skin**, wash thoroughly with soap and water. **If swallowed**, get medical attention.

If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

LIMITATION OF LIABILITY

To the best of our knowledge, the technical data contained herein are true and accurate at the time of issuance but are subject to change without prior notice. We guarantee our product to conform to the specifications contained herein. All technical advice, recommendations and services regarding this product are rendered by the Seller gratis.

They are based on technical data which the Seller believes to be reliable and are intended for use by persons having skill and know-how, at their discretion and risk. Seller assumes no responsibility for results obtained or damages incurred from this product use by Buyer whether as recommended herein or otherwise. Such recommendations, technical advice or services are not to be taken as a license to operate under or suggest infringement of any patent.

WARRANTY

Rodda Paint Co. manufactures quality products and warrants its product to be free from defects in materials and workmanship. In the event that this product is defective or in any way unsuitable for the application for which it was sold, Rodda Paint Co. will REPLACE ANY PRODUCT PROVED TO BE DEFECTIVE free of charge OR REFUND THE ORIGINAL PURCHASE PRICE OF THE QUANTITY PROVED. This warranty is the only guarantee of quality made in respect of this product by Rodda Paint Co. By purchasing this product the customer accepts this warranty in lieu of all others, and waives all claims to any other remedy arising from any warranty or guarantee of quality, whether such warranty or guarantee of quality was made expressly to the customer or implied by any applicable law.

TO BE DEFECTIVE – Requests for refund or replacement of product must be made in writing within one year from the original date of purchase. This Warranty does not apply to defects due, directly or indirectly, to misuse, abuse, negligent application, or acts of God.

Rodda Paint. WILL NOT BE LIABLE FOR DEATH, INJURIES TO PERSONS OR PROPERTY, OR FOR INCIDENTAL, CONTINGENT, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF OUR PRODUCT, INCLUDING DOWNTIME OR LOSS OF USE OF PRODUCT.

All data, statements, and recommendations made herein are based upon information we believe to be reliable, but are made without any representation, guarantee or warranty of accuracy. Our products are sold on the condition that the user themselves will evaluate them, as well as our recommendations, to determine the suitability for their own purpose before adoption. Also, statements regarding the use of our products or processes are not to be construed as recommendations for their use in violation of any patent rights or in violation of any applicable laws or regulations.

See your Rodda Sales Rep or Store Manager for details

READ LABEL AND SAFETY DATA SHEET PRIOR TO USE!



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