



ALUMIZINC 'S'

TECHNICAL DATA

LIQUID GALVANIZING FOR IRON, STEEL & GALVANIZED METAL

THE PRODUCT AND ITS USES

AlumiZinc 'S' delivers the next generation of zinc rich primer, replacing traditional products with equivalent or better protection in a more user-friendly, surface tolerant, economical format. It is a high solids, polyurethane-based primer/coating which combines several proven corrosion protection technologies: the sacrificial protection of zinc; the barrier protection of aluminum and micaceous iron oxide (MIOX); plus corrosion inhibitors. These ingredients work synergistically within AlumiZinc 'S' to provide the best qualities of each. This product provides performance that matches 84% inorganic zinc primers, with the bonus that it is more forgiving with respect to surface preparation, will cure at sub-freezing temperatures and does not mudcrack.

Use AlumiZinc 'S' wherever zinc rich primers are used, typically on a ferrous substrate such as steel and ductile iron. It also works well over galvanized substrates (both new and rehab), aluminum and other metals. Sometimes used on concrete and wood as a long-lasting barrier coating with a pleasing metallic appearance.

Simply add the supplied catalyst, mix and apply like paint. AlumiZinc 'S' forms a monolithic film at low thicknesses (3-4 dry mils) but can be easily applied to higher thicknesses with no adverse affects.. Re-coat at any time. This product is typically teamed up with Madison AcyraThane or similar topcoats. AlumiZinc 'S' may also be used on its own (2 coats recommended). Product will also perform well on concrete and wood as a barrier coating. The initial satin silver color will turn somewhat amber when cured, then age to a silver matte patina.

TECHNICAL INFORMATION

PROPERTY	TEST DESCRIPTION	RESULTS
Application Temperatures	N/A	-15°C(5°F) to 65°C(150°F)
Initial Setting Time	@ 20°C(70°F)	within 30 min. to 2 hrs. depending on catalyst
Recoat Time*	@ 20°C(70°F)	recoat within 7 days topcoat with an aliphatic topcoat within 90 days
Pot life	N/A	15 min. to 2 hrs. depending on catalyst
Solids Content by wt.	ASTM D-1259	70%
Solids Content by vol.		68%
Volatile Organic Compounds (VOCs)	ASTM D-2369	280 grams/litre
Theoretical Coverage	N/A	1122 ft ² /gal/mil; 27 m ² /litre/25 microns
Adhesion	ASTM D-4541 (SSPC-SP5)	1,500 - 1,800 p.s.i. Depending on Surface Preparation
Hardness	ASTM D-2240	50 to 60 Shore "D"
Impact Resistance	ASTM D-2794 (@ 6 mils)	200+/-10 in. lbs.
Flexibility	ASTM D-522	Pass (1/2 inch)
Resistance to Cathodic Disbondment	CSA Z-245 (65°C, 48 hours, 20 mils)	< 15 mm
Temperature Resistance	ASTM D-870, D-2485	-40°C (-40°F) to +90°C (195°F)
Colors		Silver metallic only

*However, recoat window varies depending on ambient and substrate temperatures and coating thickness.

NOTE: All statements, technical information and recommendations contained herein are typical of results obtained under laboratory conditions and are not intended to be used as contract specifications. For specification guidelines please contact Madison Chemical. updated March 18/08

APPLICATION INSTRUCTIONS

CONTACT MADISON FOR DETAILED APPLICATION INSTRUCTIONS.

A. SURFACE PREPARATION

- 1) Ensure the surface is clean, dry and uncontaminated. Proceed only if the substrate temperature is at least 3°C(5°F) above the dew point temperature, during surface preparation and coating application. Use caution if relative humidity is greater than 85%.
- 2) For severe service, abrasive blast clean with sand or grit (G40 or coarser) to a near-white finish (NACE No. 2 or SSPC-SP 10). DO NOT USE steel shot or non-angular media. Achieve the following depth of anchor pattern:
 - 3.0 mils (75 microns) profile for continuous immersion;
 - 2.5 mils (65 microns) profile for underground or embedded service;
 - 2.0 mils (50 microns) profile for atmospheric service.
- 3) For light to medium duty service, clean surface with high pressure water injected with Madison PreWash. Alternatively, use wire brush and coarse sandpaper to roughen surface. For medium to heavy duty service, prepare surface with power cleaning tools such as a disk sander.

B. APPLICATION OF COATING

- 1) Before application, slowly but thoroughly stir AlumiZinc 'S' until homogeneous. Add approximately 5% of Madison C-10 Catalyst (1-1 1/2 hrs. pot life) and stir slowly into AlumiZinc 'S' for 3 to 5 minutes. Catalysts for different set time and pot life are available at Madison. If thinning is necessary, use only Madison VR-1 Spray Grade Reducer™ or VR-2 Brush Grade Reducer™. C-7 Catalyst (medium potency) and C-4 Catalyst (fast acting) will allow thicker film build but pot life will be shorter (about 45 and 15 minutes respectively).
- 2) Coat a test area, cure for 24 hours and check adhesion. If adequate for intended service, proceed to apply AlumiZinc 'S' by brush, roller or airless spray. Recoating must occur within the recoat window (see table on page 1). If recoat time is exceeded, sand surface until gloss has disappeared over entire coated area, clean the surface, and then apply the second coat.
- 3) Inspect coating visually to make sure it is pinhole free. See Application Instructions.
- 4) Allow coating to reach ultimate cure time before putting into service.
- 5) When the product is used as a primer and will be topcoated with a Madison aliphatic coating, the recommended DFT is 3-5 dry mils. When used alone as a corrosion protective coating the minimum application thickness is 6 mils dry film. This is better achieved in two thin coats about an hour apart rather than one heavy coat. See Application Instructions if you wish to apply a thicker coat. Contact your Madison Representative for additional information.

C. CLEAN-UP AND STORAGE

- 1) This material will react with humidity and moisture. Keep containers tightly sealed. Avoid dropping or subjecting the material to strong force. For clean-up, use Madison VR-1 Reducer™, VR-2 Reducer™, M.E.K. or a 50:50 blend of M.E.K. and Xylene. Other solvents may react with product.
- 2) Store between 10°C (50°F) and 27°C (80°F). DO NOT FREEZE. Use product within 6 months of receiving.

HEALTH AND SAFETY

Madison AlumiZinc 'S' is intended for industrial use only. Coatings that contain aluminum might build-up pressure in the can over time. To avoid any sudden burst of gas, open the container carefully thus allowing the gas to escape slowly. Avoid sparks and open flames. Provide sufficient ventilation when working on this product. It contains no monomeric isocyanates but may nevertheless cause respiratory distress in some people. Provide ample ventilation. Wear a fresh air respirator when using in confined areas or when spraying. Wear rubber gloves, safety goggles and protective clothing. If swallowed, DO NOT induce vomiting as this will cause additional throat irritation; contact physician. If splashed on skin, remove immediately with rubbing alcohol and then wash with soap and water. If splashed in eyes, wash liberally with clean water and contact physician; temporary irritation of eyes may last several days. In case of fire, use self-contained breathing apparatus. See MSDS for more information. The finished product is completely inert.

LIMITED TWO YEAR WARRANTY

Madison will replace any product which, in service for which it is suitable, fails to meet specifications within two years of sale and which is proven to be defective when applied according to instructions by a Madison Approved Applicator or Certified OEM Applicator. Madison accepts no responsibility or liability for any other loss, claim, damage, injury or expense, direct or consequential, in contract or negligence. This product replacement warranty is in lieu of any other right, warranty, guarantee or condition, statutory or otherwise, expressed or implied, whether as to fitness for a particular purpose or as to merchantable quality or otherwise.

The information contained herein is believed to be accurate as of the date of publication. Madison reserves the right to change product specifications without notice.

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