



GALVACLAD™ ALIPHATIC

TECHNICAL DATA

100% SOLIDS ALIPHATIC POLYURETHANE COATING

THE PRODUCT AND ITS USES

GalvaClad™ Aliphatic is a robust polyurethane coating formulated specifically for the protection of galvanized and zinc-plated structures. The two-component (1:1 ratio), instant-setting, 100% solids (low VOC) format is ideal for high throughput applications in plant settings and for large surface areas in the field. Unique features of GalvaClad™ Aliphatic are that abrasive blasting is not required and the product is self-priming. Simply spray surface with Madison GalvaGrip™, rinse, let dry and apply GalvaClad™.

The finished product is a thick, color-stable, enamel-like layer fused to the substrate being protected. Adhesion will be comparable to a white metal blast, making the coating an excellent choice for long term resistance to hostile environments involving corrosion, chemicals, moisture (including salt water and ground water), impact or abrasion. Apply to any galvanized or zinc-plated structure for additional protection.

Typical applications for GalvaClad™ Aliphatic include building components such as girders and trusses, pipes/conduits, galvanized roofing and siding, equipment / vehicle parts and marine structures.

Please note that when resistance to chalking and fading is not a consideration, we recommend GalvaClad Aromatic™, a sister product which provides excellent protection at a lower cost..

TECHNICAL INFORMATION

| PROPERTY | TEST DESCRIPTION | RESULTS |
|-----------------------------------|---------------------------|--|
| Application Temperatures | N/A | -10oC(10oF) to 65oC(150oF) |
| Initial Setting Time | @ 20°C(70°F) | 10-45 minutes |
| Curing Time Before Handling | @ 20°C(70°F) | 20-60 minutes |
| Ultimate Cure | @ 20°C(70°F) | 7-10 days |
| Recoat Time ¹ | @ 20°C(70°F) | 3 times initial set time |
| Solids Content | ASTM D-1259 | 98% ± 2% |
| Volatile Organic Compounds (VOCs) | ASTM D-2369 | 0 grams/litre |
| Theoretical Coverage | N/A | 975 m ² /litre/microns (1604 ft ² /US gal/mil) |
| Adhesion | ASTM D-4541 | Greater than 700 p.s.i. |
| Hardness | ASTM D-2240 Shore D | 40-50 |
| Flexibility | ASTM D-522 (15 mils) | 180° over knife edge |
| Elongation | ASTM D-412 | Greater than 50% |
| Impact Resistance | ASTM D-2794 (20 mils) | 100 in. lbs |
| Abrasion Resistance | ASTM D-4060 (Taber CS-17) | 40 mg loss @ 1kg per 1000 cycles |
| Chemical Resistance | ASTM D-543 | See Chemical Resistance Chart |
| Ultraviolet Resistance | ASTM G-154 | Excellent |
| Colors | | Over 20 colors |

1. However, recoat window varies depending on the spray equipment temperature setting, the ambient conditions, product temperature/thickness and the temperature of the substrate being coated.

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. 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.

APPLICATION INSTRUCTIONS

CONTACT MADISON FOR DETAILED [APPLICATION INSTRUCTION BULLETIN](#) (also available online).

A. SURFACE PREPARATION

GalvaClad™ Aliphatic is designed to be applied over galvanized steel surfaces prepared with Madison GalvaGrip™. The temperature of the substrate must be at least 5°F (3°C) above the dew point temperature. Caution should be exercised if relative humidity exceeds 85%. Careful heating of surfaces may be used to raise the substrate temperature beyond the dew point temperature range. Dehumidification may also be used.

B. APPLICATION OF COATING

- 1) Roll or agitate individual components thoroughly before use to disperse pigments and assure homogeneity. Do not thin. Do not mix "A" and "B" together.
- 2) Spray apply using a plural component, 1:1 mix ratio, heated airless spray unit.
- 3) Unlimited film thickness can be obtained in one continuous coating operation, using one of several techniques. Contact Madison for detailed instructions.
- 4) A second coat may be applied over the first, if it is applied within the recoat window. Otherwise, roughening of the surface will be necessary to ensure good intercoat adhesion.
- 5) Coating will withstand foot traffic, tool impact handling or strapping in 15 to 45 minutes.

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™ or VR-2 Reducer™. 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

GalvaClad™ Aliphatic is intended for industrial use only. It contains no monomeric isocyanates but may nevertheless cause respiratory distress in some people. Provide ample ventilation in confined areas. Wear a NIOSH-approved cartridge-type face mask or a fresh air respirator in spray area. If swallowed, DO NOT induce vomiting as this will cause additional throat irritation; contact physician for instructions. Protect skin by wearing rubber gloves, safety goggles and protective clothing. If splashed on skin, remove immediately with rubbing alcohol or a Madison Reducer (VR-1, VR-2 or VR-4) and then wash with soap and water, as product is difficult to remove when cured. If splashed in eyes, wash liberally with clean water and contact physician; temporary irritation of eyes may last several days. See MSDS for more information. The finished product is totally inert and harmless. Review [Application Instruction Bulletin](#) for additional safety information.

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.

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Madison Chemical Industries Inc.
The World Leader For Infrastructural Coatings®
490 McGeachie Drive, Milton, Ontario, Canada, L9T 3Y5
Phone: (905) 878-8863 Fax: (905) 878-1449
E-mail: sales@madisonchemical.com www.madisonchemical.com