

MCU ALUTOPCOAT

Product and technology description

Single component moisture curing polyurea coating. MCU-Alutopcoat is a high solids UV resistant aluminium pigmented topcoat. MCU-Alutopcoat has excellent impact, abrasion and corrosion resistance. MCU-Alutopcoat can be applied directly to ferrous and non-ferrous substrates.

Technology features

Applies in 6 % to 99 % relative humidity.
Resistant to moisture within 45 min. of application.
Cure fast, even at -20 °C.
1 component.
No pot life.
No induction time.

Superior adhesion to various substrates.
No short or long term cracking.
Higher chemical resistance.
Higher resistance to blistering.
Excellent abrasion resistance.
Compatible with most conventional coatings.
Suitable for maintenance and new construction.

Area of use

Substrates

Ferro
Non ferro
Metalized
Galvanized
Aluminium
Stainless steel surfaces
Previously existing coating
Concrete
GRP

Possible uses

Bridges
Structural Steel
Work boats
Offshore Platforms
Marine/Port Facilities
Material Handling Equipment
Refineries
Pulp and Paper Mills
Pipes
Chemical Processing Facilities
Floors
Hydropower Facilities
Water and Wastewater Treatment Facilities

Specifications

Resin type: Aliphatic urethane
Pigment type: Aluminium flake
Sheen: Semi-gloss
Colours: Aluminium
Volume solids: 63.0% ± 3.0
VOC: 327 g/L (1.92 lb/gal)

Theoretical coverage: 25 µm DFT: 25.2 m²/L
1 mil DFT: 1027 ft²/gal

Recommended film thickness

Wet: 80 - 120 µm (3.1 - 4.7 mils)-not thinned
Dry: 50 - 75 µm (2.0 - 3.0 mils)

For thinning use only MCU-Thinners of MCU-Coatings.

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Drying times and temperatures

Temperatures RH at 60 % *	Tack free	Recoat minimum	Full cured	
-20 °C / - 4 °F	20 hours	72 hours	---	without MCU-Quickcure
	---	12 hours	---	with MCU-Quickcure
-10 °C / 14 °F	15 hours	24 hours	---	without MCU-Quickcure
	---	8 hours	---	with MCU-Quickcure
0 °C / 32 °F	7 hours	18 hours	---	without MCU-Quickcure
	---	2 hours	---	with MCU-Quickcure
10 °C / 50 °F	30 min	10 hours	10 days	without MCU-Quickcure
	---	1,5 hour	---	with MCU-Quickcure
25 °C / 77 °F	10 min	5 hours	7 days	without MCU-Quickcure
	---	45 min	---	with MCU-Quickcure
40 °C / 14 °F	10 min	3 hours	5 days	without MCU-Quickcure
	---	30 min	---	with MCU-Quickcure

Refer to MCU-Quickcure Product Data Sheet for additional information

* Humidity, temperature and coating thickness will affect drying and curing times

Surface preparation

Ferrous Metal

Apply to clean, dry, MCU's recommended primers. Refer to the primer Product Data for additional information.

Aluminum/Galvanized/Non-Ferrous Metals

Prepare surfaces using SSPC-SP1 Solvent Cleaning and SSPC-SP12/NACE No.5 Low Pressure Water Cleaning methods to remove surface contamination. Supplement weathered galvanized surface preparation with ISO 8501-1 St 2 (SSPC-SP 2 and 3) hand and power tool cleaning to remove excessive corrosion and impart surface on bare metal. Spot prime clean bare metal with MCU's recommended primer.

Supplement new galvanized surface cleaning with mechanical abrasion to impart surface profile and support mechanical adhesion.

Previously Existing Coatings

Prepare surfaces using SSPC-SP12/NACE No. 5 Low Pressure Water Cleaning methods to remove surface contamination. Supplement SSPC-SP 12 LPWC with SSPC-SP1 Solvent Cleaning and ISO 8501 St 2 (SSPC-SP2 and 3) Hand and Power Tool clean areas of corrosion and loose or flaking paint (feather edges of sound, existing paint back to a firm edge). OR prepare surfaces using SSPC-SP 12/Nace 5.0 High or Ultra High Pressure waterjetting to WJ4. Spot prime clean, bare metal with the recommended primer of MCU-Coatings. Sand glossy surfaces to provide profile. Apply a test sample to a small area to determine coating compatibility.

Good Practices

MCU-Alutopcoat is designed for application to a variety of substrates and tightly adhering, previously existing coatings. Apply a test sample to a small area to determine coating compatibility. Spot prime any areas cleaned to bare metal with a MCU's recommended primer.

The surface to be coated must be dry, clean, dull, and free from dirt, grease, oil, rust, mill scale, salts or any other surface contaminants that interfere with adhesion.

Ensure welds, repair areas, joints, and surface defects exposed by surface preparation are properly cleaned and treated prior to coating application.

Consult the referenced standards, SSPC-PA1 and your MCU-Coatings Representative for additional information or recommendations.

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Application information

MCU-Alutopcoat can be applied by brush, roll, airless spray and conventional spray methods (one grade only). Follow proper mixing instructions before applying.

Mixing

Material temperature must be 3 °C (5 °F) above the dew point before opening and agitating.
Power mix thoroughly prior to application.

Do not keep under constant agitation.

Apply a 3-6 oz (9-18 cl) solvent float over material to prevent moisture intrusion and cover pail.

Brush/Roller

Brush: Natural Fiber
Roller: Natural or synthetic fiber cover
Nap: 1/4" to 3/8"
Core: Phenolic
Reduction: Typically not required. If necessary, reduce with recommended thinner of MCU-Coatings.

Airless Spray

Pump Ratio: 28-40:1
Pressure: 2400-2800 psi (125-140 bar)
Hose: 1/4" to 3/8"
Tip Size: .011-.013"
Filter Size: 60 mesh (250 µm)
Reduction: Typically not required. If necessary, reduce with recommended thinner of MCU-Coatings.

Conventional Spray

Fluid Nozzle: E Fluid Tip
Air Cap: 704 or 765
Atomizing Air: 45-75 lbs.
Fluid Pressure: 15-20 lbs.
Hose: 1/2" ID; 50' Max
Reduction: Typically not required. If necessary, reduce with recommended thinner of MCU-Coatings.

Reducer

MCU-Thinner, MCU-Thinner 25 and MCU-Thinner 50. Reduction is typically not required. If necessary, thin up to 10% with recommended thinner of MCU-Coatings. See MCU-Thinner Product Data Sheet for additional information.

Clean up

MCU-Thinner, MCU-Thinner 25. If MCU-Coatings thinners are not available, use MEK, MIBK, Xylene, a 50:50 blend of Xylene and MEK or MIBK, or acetone for clean up only. Do not add unauthorized solvents to a MCU-Coatings coating.

Application Conditions

Temperature: -20 °C to 50 °C (-4 °F to 122 °F)

This temperature range should be achieved for ambient, surface and material temperature. Substrate must be visibly dry.

Relative Humidity: 6 %-99 %*

MCU-Quickcure is advised when relative humidities are below 40 %.

Coating Accelerator: MCU-Quickcure. See MCU-Quickcure Product Data for information.

Storage

Store off the ground in a dry, protected area in temperature between 4 °C - 25 °C (40 °F - 77 °F). Containers must be kept sealed when not in use. Use a solvent float to reseal partial containers.

Ordering and shipping information

Standard Packaging size: 15 and 20 litres
Shelf life: 12 months from date of shipment when stored unopened at 25 °C (77 °F)
Flash point: 23 °C (73 °F)
Density: 1.25 ± 0.12 kg/L (10.4 ± 1.02 lb/gal)

UN No.: 1263
Proper Shipping Name: PAINT
Class: 3
Packaging Group: III

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Safety precautions

This product is for industrial use only.

WARNING: Vapour and spray mist is harmful. Use an approved respirator when applying this product. Protect skin and eyes from contact. Consult the material safety data sheet for further recommendations.

Warranty

MCU-Coatings warrants its products to be free from defects in materials. MCU-Coatings's sole obligation and Buyer's exclusive remedy in connection with the products shall be limited at MCU-Coatings's option to either replacement of products not conforming with this warranty or to credit the Buyer's account the invoiced amount of the non-conforming products. Any claim under this warranty must be made by Buyer to MCU-Coatings in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf-life, or six months from the delivery date, whichever is earlier. Buyer's failure to notify MCU-Coatings of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

MCU-Coatings makes no other warranties concerning the products. No other warranties, whether expressed, implied, or statutory, such as warranties of merchantability or fitness for a particular purpose, shall apply. In no event shall MCU-Coatings be liable for consequential or incidental damages.

Any recommendations or suggestions relating to the use of the products made by MCU-Coatings, whether in its technical literature, or in response to specific inquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyers having requisite skill and know-how in the industry, and therefore it is for Buyer to satisfy itself of the suitability of the products for its own particular use and it shall be deemed that Buyer has done so at its sole discretion and risk. Variation in environment, changes in procedures of use or extrapolation of data may cause unsatisfactory results.

Limit of liability

MCU-Coatings' liability on any claim of any kind, including claims based upon MCU-Coatings' negligence or strict liability, for any loss or damage arising out of, connected with or resulting from the use of the products, shall in no case exceed the purchase price allowable for the products or part thereof that give rise to the claim. In no event shall MCU-Coatings be liable for consequential or incidental damages. Published Product Data Sheets are subject to change without notice. Contact your MCU-Coatings Representative for current Product Data Sheets.