

Product Description:

This corrosion resistant intermediate coating is a versatile overcoat product that shows superior adhesion to various substrates. Metprotect 4 has aromatic chemical resistant properties and offers outstanding barrier film protection under recommended topcoats. It provides a smoother surface for topcoat application over zinc and micaceous iron oxide primers.

Area of Use:

Substrates (correctly prepared)

Ferrous Metal
Galvanised Metal
Aluminium/ Non ferrous metal
Previously existing coatings
Concrete/ Concrete block

Possible Uses

Bridges	Structural Steel
Tank Interiors and Exteriors	Work Boats
Material Handling Equipment	Refineries
Pulp and Paper Mills	Marine/Port Facilities
Chemical Processing Facilities	Offshore Platforms
Hydropower Facilities	Pipes
Water and Wastewater- Treatment Facilities	Food Processing- Facilities

Ready Reference Information:

Resin Type: Aromatic Urethane
Pigment Type: Colouring and Anti corrosive
Sheen: Flat
Colours: Buff or off- white
Volume Solids: 62.0%± 2.0
VOC: 340 g/l
(Volatile Organic Content)

Theoretical Coverage: (@ 25µm DFT: 24.4 m²/l)

Recommended Film Thickness:

Wet: 122-163 microns- not thinned

Dry: 76-102 microns

Recommended coverage per coat:

6.1m²/l at 102 microns DFT- 8.11m²/l at 76 microns DFT

Thinning: Metprotect Thinner

Clean up: Metprotect Thinner

Drying Times and Temperatures:

*At 50% Humidity	10°C/ 50°F		24°C/ 75°F		35°C/ 95°F	
	Without accelerator	With accelerator	Without accelerator	With accelerator	Without accelerator	With accelerator
Tack Free	1 hr	--	30 min	--	20 min	--
Recoat Minimum ¹	8 hrs	1 hr	6 hrs	30 min	4 hrs	20 min
Full Cure	10 days	7 days	7 days	5 days	5 days	4 days

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

1. No outer recoat window on clean surfaces

Product Features:

- Single component moisture cure Urethane.
- No mixing errors.
- No pot life limitations.
- Protective coating for various substances.
- Easy to apply by brush, Roller or other spray methods.
- Low VOC.
- Can be applied at 99% humidity
- Can be applied in below freezing temperatures (no ice/ frost).
- No dew point restrictions (substrate must be visibly dry).
- No outer recoat window on clean surfaces.
- Compatible with Metprotect Accelerator for faster dry and cure times.

Surface Preparation

Application Information

Ferrous Metal

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

Concrete/ Concrete Block

The surface must be dry, free of surface contaminants, and in sound condition. Grease, and oil should be removed by ASTM D4258-83 (Reapproved 1999) and release agents should be removed by ASTM D4259 - 88 (Reapproved 1999). Refer to SSPCSP13/ NACE No 6 mechanical or chemical surface preparation methods for preparing concrete to suitable cleanliness for intended service. Surface preparation methods should impart sufficient surface profile for mechanical adhesion to occur. Ensure surface is thoroughly rinsed and dry prior to coating application. Allow a minimum 7 - 14 days cure time for new concrete prior to preparation and application.

Aluminium/ Galvanised/ 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 galvanised 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 profile on bare metal. Spot prime clean bare metal with Ecosea 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 SPCSP 12/Nace 5.0 High or Ultra High Pressure waterjetting to WJ 4. Spot prime clean, bare metal with Ecosea recommended primer. Sand glossy surfaces to provide profile. Apply a test sample to a small area to determine coating compatibility.

Good Practices

Spot prime any areas cleaned to bare metal with an Ecosea recommended primer. When using METPROTECT 4 as an immersion service intermediate, apply to clean, dry, Ecosea recommended primers. Refer to the primer Product Data for additional information. The surface to be coated must be dry, clean, dull, and free from dirt, grease, oil, 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. When surfaces are cleaned to bare metal, areas of oxidation after surface preparation and prior to coating application, should be prepared to specified standard prior to applying the Ecosea recommended spot primer. Consult the referenced standards, SSPC-PA1 and your Ecosea Representative for additional information or recommendations.

Metprotect 4 can be applied by brush, roll, airless spray and conventional spray application (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 6mm, (¼") solvent float over material to prevent moisture intrusion and cover pail.

Brush/ Roller:

Brush: Natural Fibre
Roller: Natural/ synthetic fibre cover
Nap: 6-9mm, ¼" to ¾"
Core: Phenolic
Reduction: Typically not required. If necessary reduce with Metprotect Thinner.

Airless Spray:

Pump Ratio: 28-40:1
Pressure: 2100-2800 psi (150-200 Bar)
Hose: (0.65-0.95cm) ¼" to ¾"
Tip Size: .013-.019
Filter size: 60 mesh (250µm)
Reduction: Typically not required. If necessary reduce with Metprotect Thinner.

Conventional Spray: (DeVilbiss MBC, JGA or equivalent)

Fluid Nozzle: E Fluid Tip
Air Cap: 704 or 765
Atomising Air: 45-75lbs. (20-34kg)
Fluid Pressure: 15-20lbs. (7-9kg)
Hose: ½" ID; 50' Max
Reduction: Typically not required. If necessary reduce with Metprotect Thinner.

Reducer: Metprotect Thinner. Reduction is typically not required. If necessary, thin up to 10% with recommended thinner. Thin in accordance with local and federal regulatory standards.

Clean Up: Metprotect Thinner. If Ecosea 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 unauthorised solvents to an Ecosea coating.

Application Conditions:

Temperature: **-12°- 50° C (10°-122° F)**
 This temperature range should be achieved for ambient, surface and material temperature. Substrate must be visibly dry. Metprotect Thinner is recommended for spray application in temperatures above 90°F.

Relative Humidity: **6%- 99%**

Coating Accelerator: Metprotect Accelerator. See Ecosea's Metprotect Accelerator Product Data for information.

Storage: Store off the ground in a dry, protected area in a temperature between 4-38°C (40-100°F). MCU containers must be kept sealed when not in use. Use a solvent float to reseal partial containers.



Metprotect 4 Technical Data Sheet

Revision date 06/07

Certifications and Qualifications:

VOC Compliant (National Standards – Industrial Maintenance Coating)
Qualified for use in USDA and FDA inspected facilities

Ordering Information:

Package Size: 1 ltr, 5 ltr, 15 ltr Containers
Shelf Life: 12 months from date of shipment
when kept at 24°C (75°F)

Shipping Information:

Flash Point: 26.6°C (80° F)
Weight/Litre: 1.5 ± .12 kg/l

DOT HAZARD CLASS: 3
DOT PACK GROUP: III
DOT LABEL: FLAMMABLE LIQUID
DOT SHIPPING NAME: PAINT
DOT PLACARD: FLAMMABLE LIQUID
UN/NA NUMBER: 1263

Safety Precautions:

This product is for industrial use only

WARNING: Vapour and spray mist is harmful. Consult the Material Safety Data Sheet. Use an approved respirator when applying this product. Consult the MSDS for recommendations. Protect skin and eyes from contact. This product contains organic solvents and polyisocyanates. Do not use if you have a chronic or allergic reaction to isocyanates or organic solvents.

Warranty:

Ecosea warrants its products to be free from defects in materials. Ecosea's sole obligation and Buyer's exclusive remedy in connection with the products shall be limited at Ecosea'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 Ecosea 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 Ecosea of such non-conformance as required herein shall bar Buyer from recovery under this warranty. Ecosea 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 Ecosea be liable for consequential or incidental damages.

Any recommendations or suggestions relating to the use of the products made by Ecosea, 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:

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