

Applying Anti-Fouling Paint to Tilt Current Meters

1 Introduction

Depending on deployment conditions, it may be a good idea to apply anti-fouling paint to a Tilt Current Meter (TCM). In general, paint should be applied to meters used in long deployments, or deployments in areas known to have high fouling rates. If the meter acquires significant biofouling, it will change the buoyancy and the drag on the instrument, decreasing the accuracy of the logger. This application note describes how to apply the anti-fouling paints Interlux Trilux 33 and ePaint EP2000 to a TCM meter.

2 Deciding on a Paint

For anti-fouling paint application, we recommend using either Interlux Trilux 33 or ePaint EP2000 paint. The appropriate paint type will depend on the deployment environment. Below is a comparison to aid in decision making:

Interlux Trilux 33	ePaint EP2000
<ul style="list-style-type: none">● Spray Paint● Extremely toxic: take safety precautions● Works in any environment● Important technical and safety information available at: https://www.interlux.com/en/us/boat-paint/antifouling/trilux-33	<ul style="list-style-type: none">● Brushed on● Water-based and generally safe● Photoactive: needs clear water to work● Important technical and safety information available at: https://www.epaint.com/product/ep-2000-antifouling-paint/

If you are having trouble deciding which paint to use, or want to ask about a different paint, please contact Lowell Instruments LLC at info@lowellinstruments.com.

3 Safety Precautions

Though the level of danger depends on your paint choice, similar safety precautions should be taken no matter which paint is chosen:

- Work outside or in a well-ventilated space
- Wear gloves and safety glasses
- If using Trilux 33 or other spray paints, wear a respirator

4 Procedure

Step 1:

Make sure the TCM end-cap is fully screwed in and watertight. Wash the exterior of the logger with warm soap and water. Be very thorough, especially with the end-cap. **You must remove any and all O-ring lube on the outside of the housing for the paint application to be successful.**

Step 2:

Lightly sand the entire exterior with a fine grit sandpaper (200+) or Maroon Scotch-Brite pad.

Step 3:

For Trilux 33: Wearing gloves, wipe off the resulting dust with **alcohol**, and let fully dry.

For EP2000: Wearing gloves, wipe off the resulting dust with **water**, and let fully dry.

Step 4:

Hang the TCM from the lanyard end, but don't use the lanyard itself, use another rope/string. An example setup is shown below:



Step 5:

Trilux 33: Spray with Trilux 33, three light coats, waiting for the paint to dry completely between coats.

Refer to the drying time table below:

Trilux 33 Drying Times				
Drying	@41°F	@50°F	@73°F	@95°F
To touch	8 hr	6 hr	3 hr	2 hr
To recoat	24 hr	20 hr	6 hr	4 hr
To launch	36 hr	30 hr	12 hr	10 hr

EP2000: Brush on EP2000, two light coats, waiting for the paint to dry completely between coats. Refer to the drying time table below:

EP2000 Max Drying Times at 50% R.H.				
Temperature	<60°F	@65°F	@70°F	@90°F
To recoat	Do not apply	16 hr	8 hr	5 hr
To launch		30 hr	24 hr	20 hr

Note: it is very important to make the coats light. If the coats are too thick, they will impact the accuracy of the tilt meters.

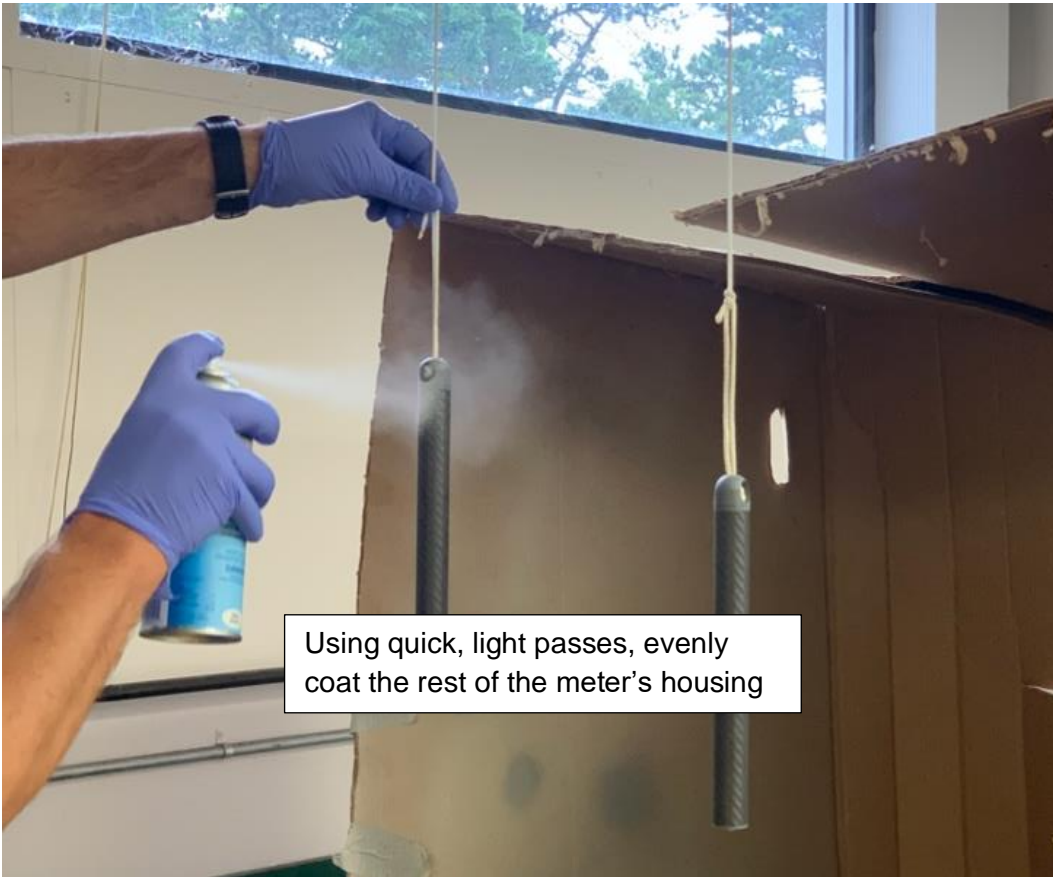
5 Painting Demonstration

Below, the process is demonstrated with a first coat of Trilux 33 on several suspended Lowell Instruments TCM-4 Tilt Current Meters.

First, the bottom of the meter is lightly sprayed:



Next, the rest of the TCM is lightly but evenly coated:



A completed first coat:



Additional Information

Lowell Instruments has made a good faith effort to make sure that the information in this application note is accurate and complete. However, we are not perfect and this document may contain errors. We also reserve the right to change these instructions at any time and without notice.

Please contact your local distributor for support or check www.lowellinstruments.com for the most up-to-date documentation including software, manuals, FAQs, firmware updates, and application notes.

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