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Evaluating Ferrocote 118 and BioCorr for Customer

Background: Customer is experiencing corrosion issues in their wash line and would like Cortec to come up with a solution to this problem.

Purpose: To compare the corrosion protection of Ferrocote 118, VPCI-418LM and BioCorr on cast iron parts from customer.

Method: ASTM D-1735 Water Fog (120°F, ~95% relative humidity)

Materials: Four cast iron parts, provided by customer
Ferrocote 118
VpCI-418LM
BioCorr Rust Preventative
Non-VCI polyethylene (PE) film

Procedure: The following procedure was used:

1) Prior to testing, all parts were cleaned with methanol.
2) After cleaning, three of the parts were dipped: one part was dipped in Ferrocote 118, the second was dipped in VpCI-418LM and the last was dipped in BioCorr.
   a. The fourth part was not dipped and was used as a control.
3) After dipping, all parts were allowed to air dry overnight.
4) After drying, all parts were packaged in non-VCI PE bags.
5) All parts were then placed in ASTM D-1735 water fog cabinet.
6) All parts were visually inspected periodically.
7) After 384 hours, all parts were removed from ASTM D-1735 water fog testing.
8) All parts were visually inspected and photographed.

Results: The following results were found:

Product Used	Time to Failure (Hours)
None (Control)	<8
Ferrocote + Non-VCI PE	216
VpCI-418LM + Non-VCI PE	120
BioCorr + Non-VCI PE	360

Conclusion: Based on the cast iron composition of these parts, a secondary rust preventive step (after cleaning) will be necessary for corrosion protection. BioCorr provided superior corrosion protection to the Ferrocote product currently used by customer.

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CONTROL

FERROCOTE

418LM

BIOCORR