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Evaluating Rust Preventive Options

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Project #: 11-150-1825(bis)

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Background: Customer would like their current rust preventive evaluated and compared to similar Cortec products.

Sample Received: Four metal stampings
Galaxydraw 790 rust preventive

Method: ASTM D-1748 Humidity Cabinet (modified)

Materials: Four metal stampings
Galaxydraw 790 rust preventive
BioCorr SC
VpCI-329D
Deionized water
Laboratory grade methanol

Procedure: The following procedure was used:

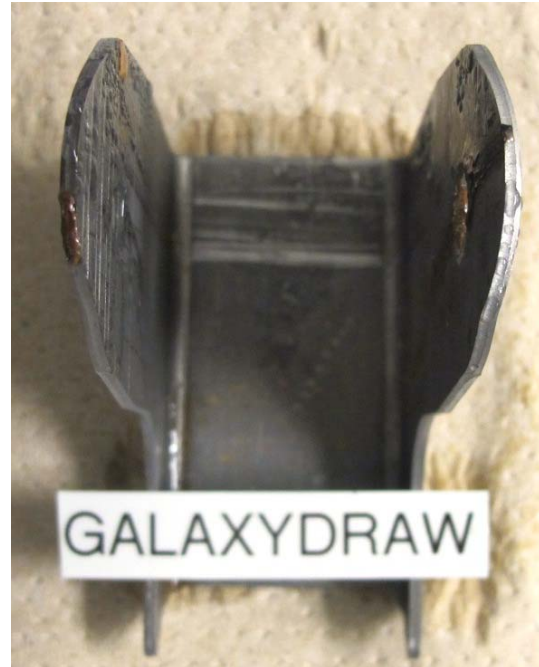
- 1) All stampings were cleaned with methanol prior to testing.
- 2) After cleaning, stampings were prepared as follows:
 - a. Dipped in Galaxydraw 790 (used as received)
 - b. Dipped in BioCorr SC (diluted to 10% concentration in deionized water)
 - c. Dipped in VpCI-329D
 - d. No treatment (control)
- 3) After dip, all stampings were hung to dry overnight.
- 4) All stampings were then hung in ASTM D-1748 humidity cabinet.
- 5) Stampings were visually inspected periodically.
- 6) After 336 hours, all stampings were removed from ASTM D-1748 humidity cabinet.
- 7) All stampings were visually inspected and photographed.

Results: The following results were found:

Rust Preventive	Time to Corrosion (Hours)
None (control)	<24
Galaxydraw 790	288
BioCorr SC (10%)	DNF
VpCI-329D	DNF

DNF – Did not fail during 336 hours of ASTM D-1748 testing.

Photos:



Interpretations: After 336 hours of ASTM D-1748 humidity testing, both BioCorr SC (10%) and VpCI-329D had provided complete corrosion protection on stampings. In comparison, the stamping protected by Galaxydraw had started to corrode after 288 hours.