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Comparing Benz Oil to Various Cortec Rust Preventatives

| Purpose: To compare the corrosion protection of Benz Oil to similar Cortec pro | ducts |
|---|-------|
|---|-------|

Method: ASTM D-1748 Humidity Cabinet (120°F, ~95% relative humidity)

Benz Oil Materials: VpCI-325 VpCI-329D

VpCI-368D VpCI-369D VpCI-389D VpCI-391

1010 carbon steel panels

Procedure: The following procedure was used:

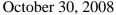
- 1) Eight carbon steel panels were cleaned with methanol in preparation for testing.
- 2) Each panel was coated with one of the following products:
 - Benz Oil a.
 - VpCI-325 b.
 - VpCI-329D c.
 - d. VpCI-368D
 - VpCI-369D e.
 - VpCI-389D f.
 - VpCI-391 g.
 - Uncoated (control) h.
- 3) After coating, the eight panels were hung to air dry overnight.
- 4) After drying, all panels were hung in ASTM D-1748 humidity cabinet.
- 5) All panels were visually inspected periodically.
- 6) After 600 hours, all panels were removed from ASTM D-1748 humidity cabinet.
- Panels were visually inspected and photographed. 7)

Results:

The following results were found:

| Panel | Time to Failure (Hours) |
|-------|-------------------------|
| A1 | DNF* |
| B1 | 480 |
| C1 | DNF* |
| D1 | DNF* |
| E1 | DNF* |
| F1 | DNF* |
| G1 | DNF* |
| H1 | <24 |

DNF – Did not fail during 600 hours of testing.



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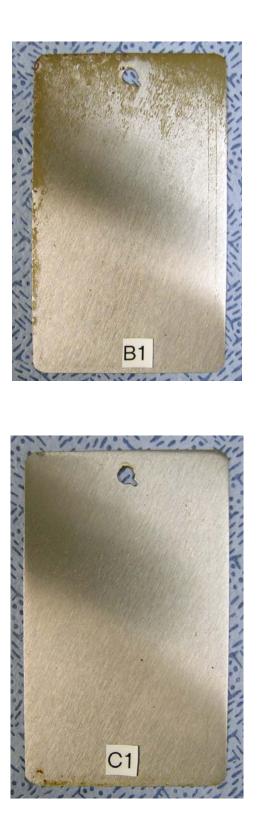


Conclusion: Overall, the Cortec products tested provided protection equal to that of the Benz Oil product. Only VpCI-325 failed prior to the end of testing. All the other products kept the carbon steel free of corrosion for 600 hours in ASTM D-1748 humidity cabinet conditions. Furthermore, most of the Cortec products are safer and easier to use than the Benz Oil product. For example, VpCI-389D and VpCI-391 are water based, yet still provide equal (or better) protection.

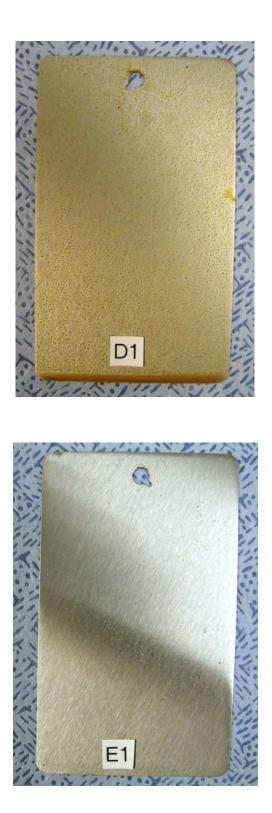
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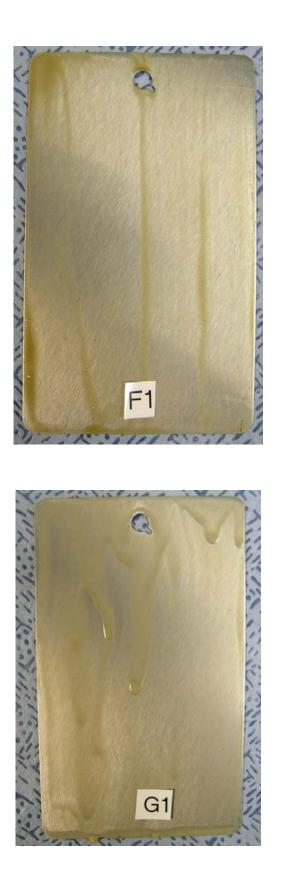
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