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Comparing VpCI-325 to Mobilarma Product

- Purpose:** To compare the corrosion protection of VpCI-325 to the Mobilarma product.
- Method:** ASTM D-1748 humidity cabinet
- Materials:** Two cast parts
Mobilarma oil-based RP
VpCI-325
Methanol
- Procedure:** The following procedure was used:
- 1) The two parts arrived and were visually inspected.
 - a. Each part had two VpCI-101 emitters on it. These were removed (as much as possible) prior to testing.
 - 2) Each part was then cleaned with methanol.
 - 3) Next, the parts were coated.
 - a. One part was coated with the submitted Mobilarma product
 - b. One part was coated with VpCI-325.
 - 4) After coating, the parts were allowed to dry overnight.
 - 5) Both parts were then placed in ASTM D-1748 humidity cabinet.
 - 6) Parts were visually inspected periodically.
 - 7) After 336 hours, parts were removed from ASTM D-1748 humidity cabinet.
 - 8) Both parts were visually inspected and photographed.
- Results:** The following results were found:
- 1) The first part, coated with the submitted Mobilarma product, showed significant corrosion after 96 hours in humidity testing. After 336 hours, corrosion covered ~10% of the surface area of the part.
 - 2) The second part, coated with VpCI-325, showed very little corrosion after 336 hours. Corrosion covered less than 1% of the surface area of the part.
- Conclusion:** The corrosion protection difference between the two products was significant. VpCI-325 provided significantly better corrosion protection in humidity testing. In addition, VpCI-325 is a vegetable oil based product, which makes it more environmentally friendly than most traditional oil based products.



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Figure 1: Parts after 96 hours in ASTM D-1748 humidity cabinet.

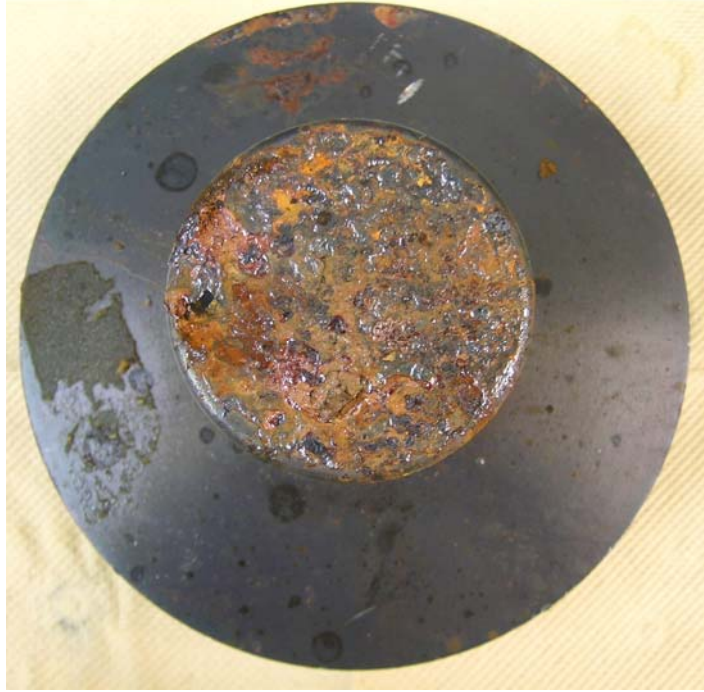


Figure 2: Part coated with Mobilarna, after 336 hours in humidity testing.



Figure 3: Part coated with VpCI-325, after 336 hours in humidity testing.