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Evaluating Corrosion Inhibiting Packaging Systems

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Project #: 11-155-1825(bis)

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Date: September 16, 2011



Background: Customer sent a variety of gas lines to Cortec for testing. They would like to evaluate possible corrosion protection packaging systems for the metal fittings and components of the gas lines.

Sample Received: Gas lines, ends wrapped in either VpCI-126 blue film (4-mil) or Daubert ProtekWrap VCI paper and plain polyethylene (PE) film.

Method: ASTM D-1735 (100°F, 95% relative humidity)

Materials: Gas lines
VpCI-126 blue film (4-mil)
Plain PE film
Daubert ProtekWrap VCI Paper

Procedure: The following procedure was used:

- 1) All samples came with ends wrapped in either VpCI-126 Blue Film (4-mil) or Daubert ProtekWrap VCI paper and plain PE.
 - a. Film was secured using rubber bands.
- 2) All samples were placed, as received, into ASTM D-1735 water fog cabinet.
- 3) All samples were visually inspected periodically.
- 4) After 1000 hours, all samples were removed from ASTM D-735 water fog cabinet.
- 5) All samples were unwrapped, visually inspected, and photographed.

Results: Discussed in Conclusions section.

Photos:





Plain PE/ProtekWrap



VpCI-126

Interpretations: After 1000 hours of ASTM D-1735 water fog testing, VpCI-126 provided significantly better protection on the metal fittings. Protection on the other tubing samples was also better, though not significantly so.