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***Comparing corrosion inhibition of Daubert Cromwell
Paper/LDPE film and Cortec VpCI-126 Film on aluminum metal
parts***

Background: Aluminum metal parts, along with Daubert Cromwell paper and 2 mil LDPE film, were sent to Cortec Corporation for testing and comparison with 2 mil Cortec VpCI-126 film.

Purpose: Evaluate and compare protection offered to aluminum metal parts by Daubert Cromwell Protek Wrap paper, with 2 mil LDPE film and 2 mil Cortec VpCI-126 film.

Method: ASTM D 1748-83 (~ 90% R.H., 120 deg F)

Materials: Submitted aluminum metal parts (4 total)
Submitted LDPE film (2 mil)
Submitted Daubert Cromwell ProTek Wrap paper
Cortec VpCI-126 film (2 mil)

Procedure:

- (1) Daubert Cromwell ProTek Wrap paper wrapped around one aluminum metal part. Package enclosed within heat sealed 2 mil LDPE film.
- (2) Aluminum metal part enclosed within 2 mil Cortec VpCI-126 film and heat sealed shut.
- (3) Aluminum metal part enclosed within 2 mil LDPE film and heat sealed shut.
- (4) Packages were allowed to condition for eighteen hours before insertion into testing chamber.



Results:

ASTM D 1748-83 (~ 90% R.H., 120 deg F)

Material	Time when corrosion observed (hrs)
Daubert Cromwell ProTek Wrap paper wrapped around one aluminum metal part. Package enclosed within heat sealed 2 mil LDPE film.	~40
Aluminum metal part enclosed within 2 mil Cortec VpCI-126 film and heat sealed shut.	~40
Aluminum metal part enclosed within 2 mil LDPE film and heat sealed shut.	6

Photos attached

Testing on a particular run stopped at the first sign of corrosion.

Conclusion:

- (1) A 2 mil Cortec VpCI-126 film provides similar protection period compared to aluminum panel wrapped in Daubert Cromwell ProTek Wrap paper and non vci 2 mil LDPE film.
- (2) Using a 2 mil Cortec VpCI-126 film only, will eliminate the need to wrap parts with a paper and then packaging with a film.

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Daubert Cromwell Paper LDPE



Cortec VpCI-126 Film



Control