

4119 White Bear Parkway, St. Paul, MN 55110 USA Phone (651) 429-1100, Fax (651) 429-1122 Toll Free (800) 4-CORTEC, E-mail info@cortecvci.com Internet http://www.cortecvci.com

Evaluation of Polyair's Bubble Film

Purpose: To test VCI properties of the submitted sample of bubble film that was

manufactured by Polyair.

Materials: Submitted sample of bubble film, manufactured by Polyair

Cor-Pak VpCI-bubbles Razor Blade Test Kit

VIA Test Kit

Perkin Elmer FT-IR 1000 Spectrometer

Method: Razor Blade Test

VIA Test

FT-IR Analysis

Procedure: The above tests were performed according to the standard procedures

for each

Results: Razor Blade Test (carbon steel)

| Material | Panel #1 | Panel #2 | Panel #3 |
|-------------------------------|----------|----------|----------|
| Submitted Polyair bubble film | Fail | Fail | Fail |
| Cor-Pak VpCI-bubble film | Pass | Pass | Pass |
| Control | Fail | Fail | Fail |

VIA Test

| Material | Panel #1 | Panel #2 | Panel #3 |
|-------------------------------|----------|----------|----------|
| Submitted Polyair bubble film | Grade 1 | Grade 1 | Grade 1 |
| Cor-Pak VpCI-bubble film | Grade 3 | Grade 3 | Grade 3 |
| Control | Fail | Fail | Fail |

Conclusion: The submitted sample of Polyair bubble film failed the razor blade

and VIA test with poor results. Based on FT-IR results the Polyair bubble film doesn't contain any corrosion inhibitors (or only an

insignificant amount).





Project #: 07-254-1125

VIA Test Grades (Grade 2 or 3 are passing)

Grade 0: Blind test

No corrosion inhibiting effect

Grade 1: Blind test

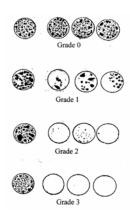
Minute corrosion inhibiting effect

Grade 2: Blind test

Medium corrosion inhibiting effect

Grade 3: Blind test

Good corrosion inhibiting effect



$\frac{FT\text{-}IR\ Analysis}{\text{Polyair Bubble Film}}$

