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Stretch Film Evaluation

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Project #: 14-197-1125

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Approved by:
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Date: September 4, 2014

Purpose: To determine the corrosion protection properties of the submitted sample of competitor stretch film, manufactured by Protyl, and compare to Cor-Pak stretch film.

Samples Received: Light green stretch film, received on 8-29-14 in good condition

Method: Razor Blade Test, CC-004*
FTIR analysis, CC-006
Nitrite/Nitrate Test*
*Cortec Laboratory is not accredited for the test marked

Materials: Razor blade test kit
Paragon 1000 FTIR
Nitrite/Nitrate Test Strips
Cor-Pak Stretch Film (roll #3551221000235)
Plain polyethylene film, 2mils (control)

Procedure: The tests were conducted according to standard procedures for each test.

Results:

Razor Blade Test- Carbon Steel Panels

Film Sample	Panel #1	Panel #2	Panel #3	Pass / Fail
Submitted Stretch Film	Fail	Fail	Fail	Fail
Cor-Pak Stretch Film	Pass	Pass	Pass	Pass
Control	Fail	-	-	-

Razor Blade Test- Copper Panels

Film Sample	Panel #1	Panel #2	Panel #3	Pass / Fail
Submitted Stretch Film	Fail	Fail	Fail	Fail
Cor-Pak Stretch Film	Pass	Pass	Pass	Pass
Control	Fail	-	-	-

Interpretations:

1. Based on razor blade test results the submitted stretch film doesn't provide sufficient protection when in contact with metals - the most important anticorrosion property.
2. Analytical evaluation is showing that submitted stretch film is nitrite-based. No other ingredients were found using FTIR.

FTIR Analysis

submitted stretch film compared to plain polyethylene film

Note- the submitted stretch film shows no signs of corrosion inhibitor