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## *Evaluating unknown blue colored films*

**Background:** Sintering Technologies currently protects their manufactured metal parts with two unknown blue colored corrosion inhibiting films. The two blue colored corrosion inhibiting films are assumed to be from Armour.

**Purpose:** Evaluate the corrosion inhibition performance of submitted films.

**Method:** Razor Blade Test  
VIA Test  
FT-IR analysis

**Materials:** Razor Blade Test Kit  
VIA Test Kit  
FT-IR Paragon 1000 Spectrometer  
Light blue colored submitted film, 3.5 mil  
Dark blue colored submitted film, 3.5 mil  
Cortec VpCI-126 film, 3.0 mil, M/B# 22570-21, Lot #22611

**Procedure:** The above tests were performed according to standard procedures for each.

**Results:**

Razor Blade Test

Material	Panel #1	Panel #2	Panel #3
Light blue colored submitted film, 3.5 mil	Fail	Fail	Pass
Dark blue colored submitted film, 3.5 mil	Fail	Fail	Fail
Cortec VpCI-126 film, 3.0 mil	Pass	Pass	Pass
Control	Fail	Fail	Fail

VIA Test

Material	Plug #1	Plug #2	Plug #3
Light blue colored submitted film, 3.5 mil	Grade 2	Grade 1	Grade 2
Dark blue colored submitted film, 3.5 mil	Grade 1	Grade 1	Grade 1
Cortec VpCI-126 film, 3.0 mil	Grade 3	Grade 3	Grade 3
Control	Fail	Fail	Fail

FT-IR analysis: See attached graph

**Conclusion:**

- (1) Submitted Light Blue and Dark Blue colored films fail to provide sufficient corrosion inhibition.
- (2) From FT-IR analysis, submitted films are constructed of low density polyethylene, blue pigment and possibly sodium benzoate.

**Project #:** 06-126-1125

**Estimated Cost of Project:** 3 hours

**To:** Mike Gabor/Cortec Corporation







**From:** Bob Berg

**Date:** 8/11/06

**cc:** Boris Miksic  
Anna Vignetti  
Rita Kharshan  
Cliff Cracauer  
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**VIA Test Grades (Grade 2 or 3 are passing)**

		
		Grade 0
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	

