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Evaluation of MetPro VCI Paper

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Background: For over 25 years, the customer has been a world leader in the design and manufacture of power transmission systems and components for the automotive industry. As part of their corrosion prevention system, the customer uses MetPro VCI Paper. A sample of this paper has been submitted to Cortec Labs to determine contact and vapor phase corrosion protection.

Sample Received: MetPro VCI paper, received on 3/14/16 in good condition.

Method: VIA Test, CC-027
 Razor Blade Test, CC-004*
 Nitrite/Nitrate Test*
 *Cortec Laboratories, Inc. is not ISO/IEC 17025 accredited for the test(s) marked.

Materials: VIA test kit
 Razor blade test kit
 Glycerol (lot #Q10A018)
 Methanol, ACS grade (lot #041715D)
 Oven set for 40°C (oven #4)
 Nitrite/Nitrate Test Strips (lot #HC435784)
 Plain kraft paper, non-vci (control sample)

Procedure: All tests were conducted according to their standard procedures.

Results:

Razor Blade Test - Carbon Steel Panels

Sample	Panel #1	Panel #2	Panel #3	End Result
MetPro VCI Paper	Fail	Fail	Fail	Fail
Control	Fail	-	-	Fail

Razor Blade Test - Copper Panels

Sample	Panel #1	Panel #2	Panel #3	End Result
MetPro VCI Paper	Fail	Fail	Fail	Fail
Control	Fail	-	-	Fail

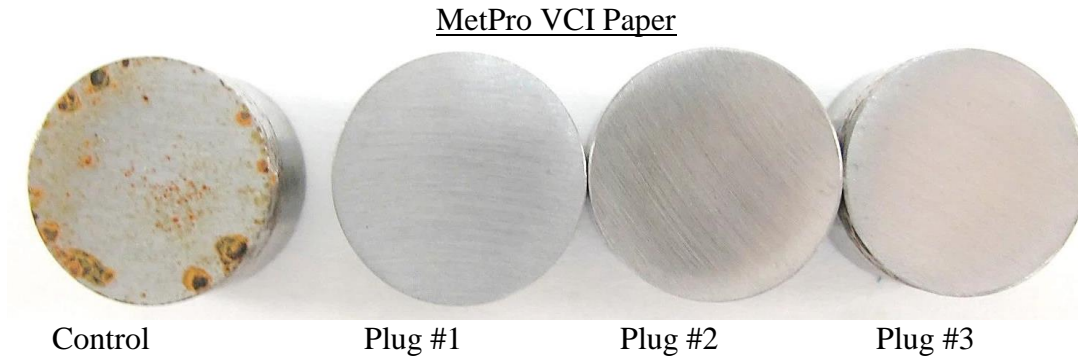
VIA Test

Sample	Plug #1	Plug #2	Plug #3	End Result
MetPro VCI Paper	Grade 3	Grade 3	Grade 3	Pass
Control	Grade 1	-	-	Fail



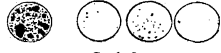

Nitrite/Nitrate Test Strip Results

The submitted MetPro paper does not contain any nitrite or nitrate.

Photos from VIA Test:



VIA Test Grades (Grade 2 or 3 are passing)
All three plugs must be grade 2 or better to pass the test

Grade 0:	Blind test No corrosion inhibiting effect	 Grade 0
Grade 1:	Blind test Minute corrosion inhibiting effect	 Grade 1
Grade 2:	Blind test Medium corrosion inhibiting effect	 Grade 2
Grade 3:	Blind test Good corrosion inhibiting effect	 Grade 3

Interpretations:

The submitted MetPro paper provides sufficient vapor phase corrosion protection to pass the VIA test. However, the results of the razor blade test were failing, which means this paper does not provide sufficient contact corrosion protection for steel or copper.

Cortec VpCI-146 paper is regularly tested to ensure it passes both VIA and razor blade testing.