



Nansulate® Accelerated Corrosion Testing

Test method: GM9540P Accelerated Corrosion Test

Why we chose this test:

The GM9540P Accelerated Corrosion Test is an advanced cyclic method originally developed by General Motors and now the corrosion test preferred by the US Navy and many industries.

To be useful, lab corrosion tests must accurately predict the probability of corrosion in the real world, thereby allowing more rapid selection of materials, coatings, and packaging. It is also important that a lab test creates the same corrosion by-products and surface defects that occur in end-use. A test method, technique, or equipment that does not provide a close match to “end use” will yield false results.

GM9540P is useful because it replicates many of the worst-case environments. The popularity of cyclic testing comes from the improved reliability of results that can be correlated with actual use. Cyclic refers to the repeated changes in test conditions, ideally to replicate the changing environments where the product will be used. Rapid changes in the test condition further serve to accelerate material degradation, which can give months or even years of information in an accelerated period of time.

The GM9540P has recently been adopted as the leading environmental corrosion test that is used universally by the Military, Auto and Heavy Process Industries.

Our Results:

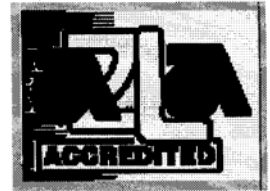
Testing was done simultaneously on a steel control (uncoated) panel and panels coated with Nansulate. The results show that after 1 cycle of the test, the steel control (uncoated) panel failed with 100% red rust present, and that after 24 cycles of the test, the Nansulate coated panel passed with no red rust present. Passing 8 cycles is considered the standard for an anticorrosion coating.

The testing was performed by Assured Testing Services, www.assuredtestingservices.com, an independent accredited laboratory specializing in corrosion testing.

TEST REPORT -1003

Assured Testing Services

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CLIENT

CLIENT

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Test Report No: 1003

Test Entry Date: Tuesday, January 24, 2006

Test Contact Name: Peter Wachtel

Test Remarks:

Client Information				Part Test Information							
PART NUMBER	PO NUMBER	INDATE	OUTDATE	TESTCNT	RETCNT	HOURS		CYCLES			
PART DESCRIPTION						REQ	COMP	REQ	COMP		
LOT NUMBER	WO-REL#	TEST SPECIFICATION NAME				TEST STATUS					
RECEIVED DATE	OURJOBID	TEST PROCEDURE NAME									
Q-Panel	Verbal-Peter	24-Jan-06	17-Feb-06	3	0	0	0	1	1		
Q-Panel						<i>At 1 cycle, all three panels failed with 100% red rust present.</i>					
Steel Control	Verbal-Peter	UNDEFINED									
23-Jan-06	926	Accelerated Corrosion Test per GM 9540P									
Q-Panel	Verbal-Peter	24-Jan-06	17-Feb-06	4	0	0	0	24	24		
Q-Panel						<i>At 24 cycles, all four panels passed with no red rust present.</i>					
Nansulate	Verbal-Peter	UNDEFINED									
23-Jan-06	926	Accelerated Corrosion Test per GM 9540P									

Danielle Schatz

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End Of Report

The results stated above relate only to the specific items tested. Information and statements in this report are derived from material, information, and/or specifications furnished by the client and exclude any expressed or implied warranties as to the fitness of material tested or analyzed for any particular purpose or use. Plating/Coating thickness measurement test methods dictate less than 10% uncertainty at a 95% confidence level. This includes the equipment, calibration and operation. This report is confidential property of our client and may not be used for advertising purposes. This report shall not be reproduced except in full, without written approval of this laboratory.

This recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony. Sample remnants are retained for a minimum of 30 days following issuance of test results, as which point they will be discarded unless notified in writing by the client.