

TEST CERTIFICATE

Description : Samples of Surtreat TPS – V Migrating Corrosion Inhibitor
Tested for : Gulf Concreting Products, P.O. Box 43010, Abu Dhabi, UAE
Contact Person : Mr. Frank Casey
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Exova Ref. No. : ADC 001633 Rev. 0
Date Received : 10.03.2010
Date Reported : 02.04.2012
Order No. : GCP/EXOVA/100307

1.0 Introduction

Further to the test works instructions received via a test requisition dated 07.03.2010 from M/s Gulf Concreting Products – Abu Dhabi. Exova Testing Limited started a long term test on Surtreat TPS – V Migrating Corrosion Inhibitor as per ASTM G109 to determine the effect of chemical admixture on the corrosion of steel reinforcement in concrete exposed to chloride environment.

2.0 Concrete Ingredients

To make the test specimen following materials were used:

Material	Source
Cement, OPC	Sharjah Cement Factory
20mm Crushed Aggregate	Ras Al Khaimah
10mm Crushed Aggregate	Ras Al Khaimah
0-5mm Crushed Aggregate	Ras Al Khaimah
Dune Sand	Al Ain
Admixture, SP 495	Fosroc
Water	ADWEA
Additives, Surtreat TPS - V	Gulf Concreting Products

3.0 Sample Preparation

Concrete was made in accordance with ASTM G109, Section 6.1 using the above materials with a minimum slump of 50mm.

The test specimens were casted with 14mm rebars placed horizontally in the concrete as per standard. The outer portion of the steel was coated with an epoxy. The specimens were demoulded and kept in a thermostatically controlled room for 28days at a room temperature of $20\pm 2^{\circ}\text{C}$ with a relative humidity of $50\pm 5\%$.

Test Method

The surfaces of the specimens were wire brushed and a pond was made using plastic with a measurement of 75mmx150mm. The pond was filled with 3% sodium chloride solution (approximately 400ml) and the specimens were kept at a room temperature of $20\pm 2^{\circ}\text{C}$ with a relative humidity of $50\pm 5\%$. After two weeks, the solution was drained and the specimens were dried for 2 weeks. This cycle was continued until the final stage. The sample's current was monitored every 4th week during the second week of ponding.


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4.0 Result

Results are given on the attached sheets

5.0 Conclusion

Based on the above results the concrete prepared with supplied Surtreat TPS-V Migrating Corrosion Inhibitor material shows good resistance to corrosion compare to concrete without Surtreat material.

Date Tested: 19/03/10 – 12/03/12

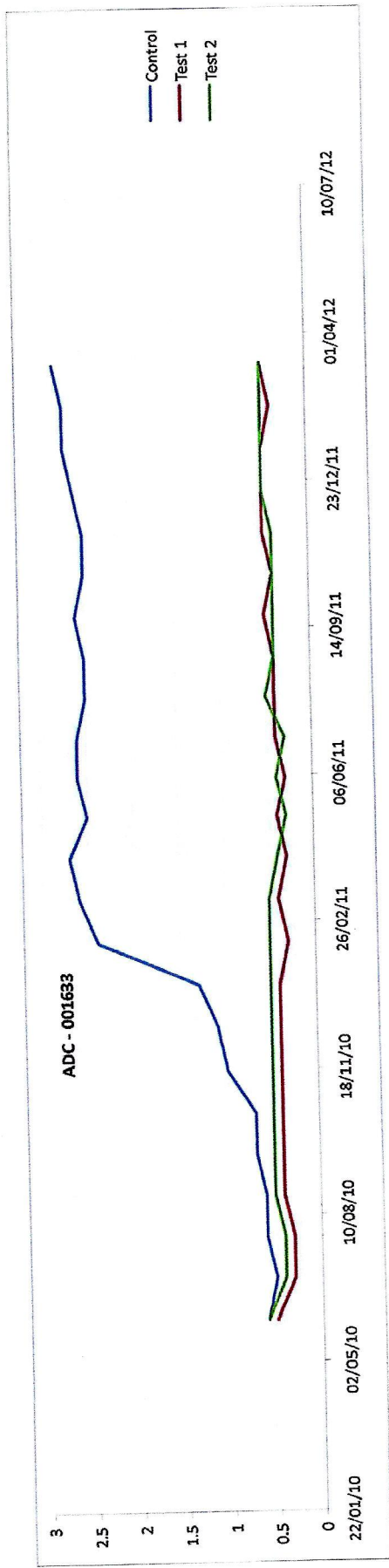
Tested By : Randy/Anandha/Ajay/Assainar


Evaluation of corrosion Inhibitor – Surtreat TPS-V

Date of Cast	19.03.2010
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Date Reading Taken	Reading (µA)		
	Test		Control
	Sample # 1	Sample # 2	Sample # 1
30.05.2010	<1	<1	<1
28.06.2010	<1	<1	<1
26.07.2010	<1	<1	<1
23.08.2010	<1	<1	<1
20.09.2010	<1	<1	<1
19.10.2010	<1	<1	<1
17.11.2010	<1	<1	1
16.12.2010	<1	<1	1
14.01.2011	<1	<1	1
12.02.2011	<1	<1	2
13.03.2011	<1	<1	3
11.04.2011	<1	<1	3
09.05.2011	<1	<1	3
04.06.2011	<1	<1	3
01.07.2011	<1	<1	3
29.07.2011	<1	<1	3
25.08.2011	<1	<1	3
22.09.2011	<1	<1	3
20.10.2011	<1	<1	3
17.11.2011	<1	<1	3
16.12.2011	<1	<1	3
14.01.2012	<1	<1	3
12.02.2012	<1	<1	3
12.03.2012	<1	<1	3

Reading Day




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