REPORT OF TESTS

Description	One Sample of Surtreat TPS - XV Migrating Corrosion Inhibitor		
Tested for	Gulf Concreting Product FZE, Post Box No.43010, Fujairah, U.A.E.		
Lab Ref. No.	WR05-06920 (Page 1 of 4)	Request No.	WQ04-07191
Date Received	18.10.2004	Date Reported	02.04.2006

Client's ref. : Req. dtd 18.10.2004

1.0 Introduction

Further to the test work instructions received via a test requisition dated 18.10.2004 from M/s. Gulf Concreting Product Fujairah, Al Futtaim Bodycote Materials Testing Services started a long term test on Surtreat TPS - XV 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 Mix Design for Concrete

To make the test specimen following materials were used: -

Cement	:	Type I Cement ex Sharjah Cement Co. Dubai, UAE
Aggregate	:	1½" Aggregate ex STEVIN ROCK
Sand	:	0 – 5mm Sand ex Bartawi
Admixture (Air Entraining)	:	Source - MBT
Water	:	Dubai Main Supply
Additives	:	Surtreat TPS - XV
Steel Reinforcement Bar	:	14mm ex Qatar

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 28 days at a room temperature of 20±2°C with a relative humidity of 50±5%.

Test Method

The surfaces of the specimens were wire brushed and a pond was made using plastic with a measurement of 75mm x 150mm. The pond was filled with 3% sodium chloride solution (approximately 400ml) and the specimens were kept at a room temperature of 22+2°C with a relative humidity of 50+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.

4.0 Result

Results are given on the attached sheets.

5.0 Conclusion

Based on the above results the supplied Surtreat TPS - XV Migrating Corrosion Inhibitor material can be used in concrete as a corrosion resistance additive.

V.K Pillai
Chemical Laboratory Manager

For and on behalf of Al Futtaim Bodycote
Materials Testing Services (L.L.C)
Tested By : SKS , Date tested: 20.01.2005-30.03.2006

Al-Futtaim Bodycote
P.O. Box

Evaluation of corrosion Inhibitor- Surtreat TPS - XV

Date of Cast	20.01.2005
Dosage	1 L/M^3
Ponding Started	23.02.2005

Reading (μA)		Test	Control
03.03.2005	A	<1	<1
	B	<1	<1
	C	<1	<1
31.03.2005	A	<1	<1
	B	<1	<1
	C	<1	<1
28.04.2005	A	<1	<1
	B	<1	<1
	C	<1	<1
26.05.2005	A	<1	<1
	B	<1	<1
	C	<1	<1
30.06.2005	A	<1	<1
	B	<1	<1
	C	<1	<1
28.07.2005	A	<1	<1
	B	<1	<1
	C	<1	<1
25.08.2005	A	<1	<1
	B	<1	<1
	C	<1	<1

Reading (µA)		Test	Control
22.09.2005	A	<1	1
	B	<1	1
	C	<1	1
20.10.2005	A	<1	1
	B	<1	1
	C	<1	1
10.11.2005	A	<1	1
	B	<1	1
	C	<1	1
08.12.2005	A	<1	1
	B	<1	1
	C	<1	1
05.01.2006	A	<1	1
	B	<1	1
	C	<1	2
02.02.2006	A	<1	4
	B	<1	4
	C	<1	5
02.03.2006	A	<1	7
	B	<1	7
	C	<1	8
30.03.2006	A	<1	9
	B	<1	10
	C	<1	11

Testing of Corrosion Inhibitor